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Editorials

THE TABLE MANNERS OF THE EIGHTEENTH CENTURY

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MANY treatises on good manners, published in France, during the seventeenth and eighteenth centuries, are full of lively details, which give a very exact and animated description of the customs prevalent among the people in those days. Although at the first perusal, the rules of polite behavior, as given in one of these treatises, seem to be of small interest to physicians, references are occasionally made to medical matters.

In the eighteenth century, gentlemen wore swords, and table etiquette required that they should not remove them, when sitting down at table—a practice which did not make for peace, and must also have contributed its quota to the noise ordinarily caused at table. An individual, when at table, was advised to refrain from showing, by any gesture, that he felt hungry; he shouldn't look at the viands in a greedy way, as though he was anxious to fall to immediately.

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In the eighteenth century, doctors must have had plenty of opportunities for treating severe burns of the mouth and tongue, if one may judge by the beginning of the following passage: "If, unfortunately, you should burn yourself when taking soup, you must bear it patiently, and not show it; but, if, as occasionally happens, the pain is unbearable, you should, before the company perceive what you are about to do, take your plate in one hand, lift it to your mouth and then, while covering yourself with the other hand, replace what is in your mouth on the plate, and hand it quickly to the lackey behind your chair. Civility demands that you should act politely; but you are not required to commit suicide." Bread had to be cut with a knife, and people were instructed to cut their bread into small pieces, "so as not to swell out their cheeks as monkeys do." Recommendations of this kind denote an epoch, when people ate their food—not perhaps in a gluttonous way—but, at any rate, in a real manner, and not just to go through the motions, as was the fashion in France a few years ago.

The names of the choice bits of meat, in the order of succulence, fill several pages of an octavo treatise on table manners, which, of itself, is no bad sign of the customs of the eighteenth century. The table was then a matter of immense importance, and the people were very fond of good eating. "If you are served first at table, you should be careful to leave the best parts to the other guests. You should, therefore, know the choice bits according to current opinion. If

boiled fowl is served, the thigh is preferred to the wing. If the bird is roasted, you should distinguish—in birds which scratch the ground, the wing is always the more delicate; on the contrary, the thigh is preferable in birds which fly in the air. In fatted fowl, capon, goose, turkey, the white meat is generally preferred. "If you are carving a fat joint of beef, you should offer, to the guest of honor, that piece in which the fat and lean are mixed—the small side of the sirloin is the favorite. The kidney of veal is the tidbit. In a similar way, the skin and the ears of a sucking pig are the best morsels; if you are carving hare, you should offer some of the flesh near the tail."

From a gastronomic viewpoint these rules read very nicely—enough to make a man's mouth water. To check any feeling of that kind, mention might be made here of what was known as the "qualms," in the eighteenth century. "Should it chance, by some extraordinary accident, that you find something in your mouth which ought not to be swallowed, it would be very impolite to let it drop on your plate, as though it had been vomited; you should take it in your hand, place it gently on your plate, and give it to a lackey to remove it, so that the other guests may not observe what you have done; never throw anything on the floor."

A rather extraordinary bit of advice is the following: "After a meal, do not pick your teeth with the knife or fork; do not rinse your mouth with water. To see a gentleman expectorating water might give some delicate people a touch of the 'qualms.' " Here

are a few other bits on table manners, which may be thought over: "To blow your nose into your handkerchief, in a careless way, without covering yourself with a napkin, to wipe the sweat from your face, to scratch your head, or some other part of the body, to raise fluid and expectorate it, to belch wind from the stomach forcibly and frequently are tricks filthy enough to upset anyone's stomach."

Evidently, this treatise on table manners would seem to have been written for the benefit of rustic readers; but, all the same, many educated people, who lived in the eighteenth century, had recourse to its pages, when the occasion demanded it. When we who live in the twentieth century look over these details of table manners, we get a truer insight into the life of the eighteenth century, than we do when reading a formal history of that epoch. J. J. C.

REGIONAL ANESTHESIA IN OPERATIONS ON THE EXTREMITIES OF THE BODY

In spite of the perils of general anesthesia, produced by ether or chloroform, local anesthesia by cocaine or novocaine does not obtain as large a patronage as its merits deserve. One reason for this neglect is that, when a surgeon is going to do a rather important operation, he fears that local anesthesia may prove insufficient to prevent pain, and so selects a major anesthetic. Allowing for hesitations and fears of that kind, all surgeons should give due weight to Dr.

Crile's histological experiments, showing the genesis of shock, arising from operative wounds. These experiments show that a patient, undergoing an important operation under ether, takes more or less time to recover from the shock of the operation. In a patient operated on with the assistance of regional anesthesia, with or without ether, operation has no reaction on the organism.

Dr. Dupuy de Frenelle writes entertainingly of his personal experience of regional anesthesia (*Paris Médical,* 26 *Mars,* 1914). He no longer fears that his patients will feel the slightest pain; because, when about to do an operation on a segment of an extremity of the body, he combines the three following methods: anesthesia of the main nerve, local anesthesia of the line of the incision, anesthetic infiltration of the operation field.

The instruments used are (1) a Ricord syringe, holding 2 C.C.; (2) several very fine, sharp needles of different lengths; (3) an elbow joint, useful in fitting the syringe to a needle at an angle, for convenience when injecting in certain localities. The anesthetic used is a solution of novocaine, put into three bottles. One bottle of 10 C.C. holds a two per cent. solution, which is injected, so as to be placed in contact with nerve trunks. A second bottle holds 20 C.C. of a one per cent. solution which is to be injected along the line of the incision. A third bottle holds 20 C.C. of a one-half of one per cent. solution, which is used to flood the whole operation field.

The details of the technic are as follows. The preparation of the patient comprises: An injection of pantopon, half an hour before the operation begins —no fasting, no purgation. Pantopon is an opium preparation, containing the total opium alkaloids, in the form of soluble hydrochlorides. It is said to be about double the strength of morphine. Preparation of the extremity comprises the usual bathing of the part with alcohol and painting it with tincture of iodine. Anesthesia is produced as follows: The Ricord syringe is filled, three-quarters full, with a two per cent. solution of novocaine, a fine, rather short needle, of suitable length, is attached to it. This needle is then thrust down, perpendicularly, to the nerve trunk on which the sensibility of the operation field depends. This injection is made at a distance from the seat of the operation, near the root of the extremity in which the operation is to be done. When the needle touches the nerve trunk, the patient feels a sensation of "pins and needles" or a slight pain extending along the track of this nerve. To be sure that the needle has not entered a blood vessel, the operator withdraws the plunger of the syringe a little bit; if no blood appears in the barrel, he pushes the contents of the syringe around and against the nerve trunk. If the operation region is tributary to several nerve trunks, each of them is sprayed with the two per cent. solution of novocaine. The one per cent. solution is then injected along the line of the proposed incision. It is used freely, if the degree of insensibility, shown by the patient to the pricking of the

needle, proves that the anesthesia obtained by the injection of the trunk nerve has been imperfect. Lastly, using a very fine needle, the operator punctures several points in the operation field, in order to judge of its insensibility. If the slightest sensitive point is discovered, it is sprayed with the half of one per cent. solution of novocaine.

With this triple method of applying local anesthesia, Dr. Dupuy de Frenelle contends, that nothing is left to chance. The patient does not feel the slightest pain during a long and an extensive operation. The surgeon is enabled to complete his work with satisfaction. He may also feel gratified to know, that, in addition to the complete anesthesia of the operation field, there is also established a barrier of anesthetic security on the tracks of nerve trunks, far removed from the operation field, the functions of which nerves are protected, by the assistance of regional anesthesia, from all operative traumatism.

J. J. C.

MARRIAGE AND VENEREAL DISEASE

IMPORTANT statutes have been passed in recent years by some of the neighboring States, to prevent the marriage of persons, suffering from epilepsy, alcoholism, pulmonary consumption or venereal diseases. Thus, some nine States forbid the marriage of an epileptic person; two forbid it to common drunkards; six to persons suffering from venereal diseases. Such

laws have been in force in Connecticut, Indiana and Michigan for many years. Hence, if the marriage law of these States be violated by one of the contracting parties, a dissolution of the marriage may be obtained, if "fraudulent contract" is a recognized statutory ground of divorce.

On January 1, 1914, a statute regulating the physical condition of every man, proposing to contract marriage, went into force in Wisconsin. A thorough physical examination of the man by a medical practitioner is required, before a license is issued. It is to comprehend the application of recognized, clinical and laboratory tests, suitable to that end—the fee is not to exceed three dollars. No license of marriage is to be issued, unless a certificate of good health in these respects, founded on an examination, made within fifteen days before the application, is presented. To wilfully issue a false certificate is perjury, and a conviction for this offence entails loss of a physician's license.

Difficulties occur in connection with the working of the Wisconsin statute. For instance, if a Wassermann test is to be applied on three or four consecutive occasions; if it should be thought necessary to follow these tests with a Noguchi test, a certificate could not be issued, so that marriage could take place in fifteen days. Neither is a fee of three dollars sufficient for the laboratory tests. For a clinical test, similar to the procedure adopted for life insurance, such a fee might be accepted. Possibly, the Wisconsin legislators may have intended that only a clini-

cal test should be made; or may have thought that the Wassermann test would not be called for, unless indications of syphilis, sufficient to deter a man from wishing to contract marriage, should be present. Such an assumption, however, would prove to be an error, in a good many cases. A man may contract marriage, just before a secondary syphilitic rash has appeared on him, or, just after a syphilitic sore mouth has begun to appear. In the latter case, the marriage certificate would not be issued; in the former one, a very innocent looking man might be allowed to ruin a woman's health, unless, on cross examination, he were to acknowledge, that, just two months prior to the medical examination, he had noticed a sore on his genitals, which had disappeared on cauterization. In such a case, it would be quite fair that a Wassermann test should be made at the expense of the applicant for the license. Chronic gonorrhea in men offers some difficulty to medical examiners; its presence should, of course, be a bar to the issue of a marriage license.

The marriage statute of the State of Washington deserves some notice. No marriage license can be issued in that State, if the woman is under the age of forty-five, unless upon a sworn application, stating that neither party is affected with pulmonary tuberculosis, in an advanced stage, and that the man has no contagious venereal disease. False swearing is made perjury. Sweden requires a physician treating a case of syphilis to report it to a registration bureau. In that country, therefore, a marriage certificate should

be countersigned by the chief of the registration bureau. In Germany, marriage has been made illegal for a man who had syphilis, until a certain number of years have elapsed, since the disappearance of that disease.

Obviously, the statutes of American States and the regulations of European countries, respecting the issue of marriage certificates, are worthy of careful study in Canada. The time has surely gone by, when a young woman should step from the secure haven of healthy maidenhood into a marriage bed, which may prove as fraught with contagion, as if she had gone to live in a brothel. One great obstacle to the passing of a statute protecting marriage is, that legislators, like most other men, have had venereal diseases, and think that applicants for marriage licenses should not be obliged to answer compromising questions. Such reasoning, now-a-days, in the light of the above mentioned statutes and regulations, is quite futile. Equally so is the "conspiracy of silence" before women and children, as to the existence, character, and wide dissemination of venereal diseases.

Ignorance supports the conspiracy of silence. Let us let in the light, so that no clean girl need be led to the marriage altar, until she or her family feel assured that the groom is sound in brain, wind, limb, and that he has never had, or has been properly cured of, any venereal taint.

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Original Contributions

SURGICAL LIMITATIONS IN DIABETES

BY HERBERT A. BRUCE, M.D., F.R.C.S.
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Until comparatively recently it was the general rule to avoid surgical operations altogether in cases of diabetes, owing to the belief that diabetic patients were especially liable to suppuration in operation wounds, and they were therefore not infrequently allowed to die from acute abdominal emergencies without any attempt being made to relieve the condition by surgical interference. The significance of surgery in connection with diabetes has been so little recognized that Naunyn, in his most recent work on Diabetes,[1] devotes only a few paragraphs to the consideration of that branch of the subject.

Owing to the recent advances in the knowledge of the disturbances of metabolism which characterize diabetes, and the great improvements in surgical technique and asepsis, the prognosis of operation in this condition has very materially improved, and many writers, including Israel,[2] König,[3] Kausch,[4] Mayo Robson,[5] Bland Sutton,[6] Umber,[7] and Manges,[8] have reported good results from operation, sometimes even major operations, and in very severe cases of diabetes.

Umber thinks that under the present conditions the reluctance of many surgeons to operate in diabetes is no longer justifiable, and he even goes so far as to express the opinion that the indications for surgical interference are practically identical in diabetic and non-diabetic subjects. Most of the other authorities, however, including Mayo Robson and Kausch, with whose opinion I am in accord, recommend operation in diabetes only for conditions which threaten the safety of life or impairment of function, and state that it should then be performed with the most careful and special precautions, both in

*Read before the Academy of Medicine, Toronto, April 7, 1914.

the preliminary preparation of the patient and in the endeavor to secure thorough asepsis at the operation. Under such conditions they believe that in a large proportion of cases in which the urine contains sugar, even in considerable quantity, surgical operation may be safely and successfully performed, and that in a certain number of cases it may even result in temporary or permanent improvement in the diabetes.

Narcosis in Diabetic Patients.—It cannot be denied that the presence of diabetes increases the danger of a surgical operation to a certain extent, but this danger may largely be minimized by special precautions in regard to anesthesia, and by rendering the urine of the patient free from sugar by a course of antidiabetic treatment previous to operation if the nature of the case allows of sufficient delay for this.

The chief immediate risk in operation is the supervention of diabetic coma on narcosis, and in some cases it is impossible to prevent this. It is generally recognized that true diabetic coma is due to an intoxication of the organism by oxybutyric acid. Kausch therefore recommends that alkali should be administered before anesthetization, and that the diabetic organism should be saturated with it, with the object of neutralizing the acid intoxication. If signs of coma appear energetic sodium treatment should be undertaken, per os, per anum, subcutaneously and intravenously. Even in cases in which the diabetes is in an early stage the coma cannot be ignored, as is shown by three cases reported by Futh.[9] In all these three cases diabetes was in a very early stage, or was not suspected before the performance of operation, and fatal diabetic coma appeared after an extensive laparotomy.

Most of the writers on the subject are agreed that local anesthesia is preferable to general anesthesia, and that if local anesthesia is not sufficient ether should be employed in preference to chloroform, which has much more frequently been assumed to be responsible for diabetic coma. Kausch states that, judging from his experience at the Breslau Clinic, increase of acetonuria and glycosuria is much more common after chloroform than after ether, and Becker[10] found that severe acetonuria was constant after chloroform narcosis in diabetes. Lépine[11] thinks that the remote results of chloroform

intoxication are more to be dreaded than its immediate results, and that it is likely to render existing acetonuria much more severe.

Kausch, who has had considerable experience in these cases, recommends that if it is necessary to give a general anesthetic it should invariably be given in the early morning, in order not to prolong unnecessarily the period of physiological hunger, as it is a well known fact that this leads to acetonuria, or tends to increase it if already present. If possible the urine should be rendered free from sugar before the narcosis is undertaken, and sodium bicarbonate should be administered. The quantity of the anesthetic and the duration of narcosis should be reduced as much as possible. Several consecutive narcoses at short intervals should be avoided, owing to the fact that in diabetes the organs are less capable of resisting narcotics, and should therefore be allowed time to recover from the shock of the previous narcosis.

Umber recommends intravenous injections of sodium bicarbonate in incipient coma, but does not think they are advisable as a prophylactic before operation, owing to the risk of producing thrombosis of the veins of the arm. Körte[12] states that if coma has already appeared sodium bicarbonate is the only means of saving the patient, but is successful in only a very small proportion of cases. He thinks this may be partially due to the fact that the treatment is usually deferred until a late stage of the coma, and that the alkali is given in insufficient doses. He gives doses of 50, 100, or even 150 g. in the course of twenty-four hours.

Schwarz of Prague[13] has recently reported good results from a combination of the acid derivatives of carbohydrates and sodium bicarbonate. It is given in a dose of about 70 g. in a half litre of water, which has been previously neutralized by the addition of sodium bicarbonate, and in two of the cases in which he has used it incipient coma has disappeared. The rationale of the method consists in the fact that the carbohydrate is used and burnt up by the diabetic organism, and we thus get the same effect as from the administration of carbohydrates in a healthy individual.

Emergency Operations in Diabetes.—Umber is of the opinion that at the present day the dread of surgery in diabetes. which is still felt by many physicians and surgeons, is no longer justifiable, and that while the presence of diabetes is still a serious drawback from a surgical point of view, it should not by any means be regarded as by any means an absolute contra-indication to surgery. Operations for conditions which do not represent a danger to life, or the impairment of important functions, such as those for deformities or benign growths, should as a rule not be undertaken, but there should on the other hand be no hesitation in proceeding with urgent or emergency operations, such as those for acute appendicitis, acute intestinal obstruction, strangulated hernia, or injuries. Umber reports two cases in which he operated for acute appendicitis with good results, the progress of convalescence being practically the same as in non-diabetic cases.

If the condition for which operation is indicated allows of a few days' delay it is advisable to carry out anti-diabetic treatment with the object of inducing aglycosuria, and thus increasing the tendency to healing. If the acute nature of the condition, such as acute intestinal obstruction or appendicitis, does not permit of such a delay, the operation should be carried out immediately, and subsequent dietetic treatment relied upon for the production of aglycosuria as rapidly as possible.

The most difficult cases to deal with are those with acidosis, as slight trauma under such circumstances not infrequently leads to fatal results. In cases with increasing acidosis the oatmeal cure before operation is especially indicated, and Umber recommends that at the same time the patient should be given doses of 0.1 extract of opium, which tends to relieve both glycosuria and acidosis. In cases of severe acidosis, if operation cannot be delayed, he recommends the administration of alkali per os and per rectum, together with the intravenous injection of opium. He believes that while the importance of acidosis cannot be denied, it has to a certain extent been exaggerated, and that, if the diacetic and oxybutyric tests have a negative result, operation should be proceeded with, even if the acetone reactions are very intense. If the proportion of ammonium nitrogen to the total amount of nitrogen excreted in the urine

remains within normal limits the danger from severe acidosis or the supervention of diabetic coma after operation is not sufficiently great to prevent the performance of a necessary operation.

Furunculosis and Carbuncle in Diabetes.—In the setting up of these conditions, as well as of diabetic gangrene, the condition of the vessels in the region affected is of the utmost importance, and Umber states that in every case of diabetic gangrene which he has examined by the X-rays there has been a typical sclerosis of the arteries supplying the diseased area. Arteriosclerosis is therefore a serious complication which has to be considered in these cases.

In furunculosis associated with slight diabetes Pilcher[14] recommends that incision should if possible be avoided. Endeavors should be made to produce aglycosuria, moist dressings applied to the lesion, and finally Bier's hyperemic treatment.

Pilcher considers the prognosis exceedingly grave in cases of carbuncle, associated with arteriosclerosis and diabetes, and in his experience the condition has invariably terminated in death after a short illness. In his opinion the fatal result in these cases is due to a combination of diabetic toxemia and general septicemia.

Diabetic Gangrene.—Umber is of opinion that the primary cause of diabetic gangrene is sclerotic endarteritis, resulting in a deficient vascular supply, and his experience indicates that in some cases the presence of diabetes may be entirely overlooked, owing to the absence of glycosuria. Such cases should not be described as diabetic gangrene, but as arteriosclerotic gangrene in diabetic patients. The onset of gangrene, even in cases of slight diabetes, may be accompanied by disturbance of metabolism and signs of acidosis, these symptoms sometimes retrogressing on removal of the gangrenous focus. König[15] reports two instances of this sequence of events. These cases were not cases of severe diabetes which, by the operation, were transformed into slight diabetes, but cases of slight diabetes which reverted to their original character after removal of the gangrenous focus, which was disturbing internal metabolism.

Until comparatively recently operation for diabetic gangrene was expected to result in diabetic coma and death within

a short period, but the perfecting of the technique during the last two or three decades, and above all the careful preparation of the patient for operation, have greatly improved the results, and Ochsner[16] believes that in diabetic amputations the wounds as a rule heal by first intention.

Most of the authorities on the subject, including Bouchardat,[17] Umber, Pilcher and Lépine, recommend that whenever possible operation should be delayed, in order to allow time for the improvement of the general condition of the patient and for the production of aglycosuria by general antidiabetic treatment. This is of special importance in the presence of arteriosclerosis, in view of the possibility that with improvement of the general constitutional condition the case may be placed in a more favorable position as regards the prognosis of operation. But whilst it is no doubt advisable, in the presence of severe diabetes, to postpone operation as long as possible, it should at the same time not be forgotten that in not a few cases constitutional conditions, which have previously been uninfluenced by treatment, quickly respond to it after removal of the gangrenous lesion.

Lépine recommends that during this waiting period air douches, at a temperature of 300 degrees, should be used daily, and states that under the influence of this treatment in favorable cases the ichorous fluid drains away, the tissue gradually mummifies, and that if the line of demarcation becomes well marked and septicemia is disappearing one may then operate under comparatively favorable conditions.

In subacute gangrenous phlegmon such conservative treatment is not suitable, and operation should be performed without delay, amputation being performed at a very high level. Operation should also not be delayed if there is no improvement in the general and local condition under general anti-diabetic treatment and local antisepsis, and if the extension of gangrene and sepsis and pain indicate the urgency of surgical intervention.

As regards the technique of operation care should be taken to avoid any interference with circulation. With this object no preliminary Esmarch bandages should be used, the flaps should be made from within outwards, and sufficiently thick

and long to fall back without tension. Pilcher is of opinion that with scrupulous precautions one may expect about 50 per cent. of successful results in diabetic gangrene of the extremities.

Amputation should of course be done in healthy tissues, and it is advisable that it should be done sufficiently high up, in order to avoid the necessity of a subsequent operation for recurrent gangrene above the wound. Heidenhain[18] reports the results of operation in eleven cases of senile diabetic gangrene in Küster's Clinic. In all these cases Küster, who commenced with a comparatively low amputation, was afterwards obliged to operate higher up for recurrent gangrene, and finally, in some cases in which the gangrene involved the dorsum or sole of the foot, he had to amputate above the knee-joint. Recovery followed in six of the eleven cases.

Umber reports cases in which acidosis disappeared after operation for gangrene. In one of these the diabetes had been present for twenty years. In another case, in which the diabetes was very severe, coma was averted by anti-diabetic treatment, and for two years after an operation for gangrene the patient was able to perform his ordinary duties as a military officer. Death from diabetes did not occur until six years later.

Operation for Trauma in Diabetes.—It has not yet been definitely established that the theory, which was first advanced by Verneuil,[19] that bones do not unite well after fractures in diabetes, is correct, but it seems only natural to assume that the regenerative capacity of the tissues of the body is lessened to a certain degree.

Kausch has made a special study of fractures in diabetes, and has collected eleven cases of traumatic glycosuria, nine of which were fractures. Of these nine cases three were fractures of the lower leg, one a fracture of the patella, three compound fractures of the toe, and two fractures of the pelvis. In one there was contusion of the lower leg, and in one of the neck of the femur. It has been frequently stated that traumatic diabetes is very often associated with severe polyuria and slight glycosuria, but in all these cases the first urine evacuated after the trauma contained sugar up to one per cent., and in no single one of them was there any further symptom of diabetes.

In 1886 Rédard[20] reported seven cases of fracture, which developed what he describes as ephemeral glycosuria after the trauma. Hädke[21] found alimentary glycosuria in fifteen of twenty-five cases of recent fracture at the Dantzig Clinic.

Kausch does not believe that the inference that this ephemeral glycosuria is of no significance to the surgeon is correct, and thinks that, in spite of the few reports in literature, cases of the kind are by no means rare, and that there is a possibility that in them we are dealing with slight or so-called latent diabetes, which as the result of the trauma or operation becomes for the time being more severe. These results indicate that individuals who, as regards sugar metabolism, we must assume to be perfectly normal, may excrete sugar as a consequence of trauma or operation, and thus favor the assumption that there is a definite connection between trauma and glycosuria. There are as far as we know no positive signs by which we can determine whether true diabetes or merely ephemeral glycosuria is present, and he therefore recommends that in doubtful cases if possible the surgeon should wait for further developments. If the urgency of a particular case renders this conservative course impracticable he should proceed as if diabetes was present, and take all the special precautions, more especially in relation to narcosis, which are considered advisable when performing operations on diabetic subjects.

Operations on the Pancreas in Diabetes.—A definite connection of the pancreatis secretion with carbohydrate metabolism was first established by Mering and Minkowski[22] in 1889, and Mayo Robson believes that from 70 to 80 per cent. of cases of diabetes are of pancreatic origin.

Whilst Mayo Robson is of opinion that a very considerable proportion of cases of glycosuria are due to disease of the pancreas, cancer of the pancreas is very rarely associated with diabetes, and in more than a hundred cases of pancreatitic cancer he has observed it in only three per cent. He reports cases in which glycosuria disappeared after operations, including the removal of cancer of the head of the pancreas, secondary carcinoma of the biliary ducts, biliary calculi associated with enlargement of the pancreas, duodenal ulcer associated with chol-

angitis and interstitial pancreatitis, and catarrhal pancreatitis associated with gall-stones.

Körte reports a case in which the urine contained sugar to the amount of 6.9 per cent. After the removal of a large necrotic sequestrum from the pancreas it remained free from sugar for nearly two years, when there was a recurrence, which again subsided under anti-diabetic treatment. The patient ultimately died of diabetic coma six years later.

Mayo Robson points out that many cases of pancreatitic origin may be benefited or even cured by operation, and he believes that in some instances surgical treatment at an early stage may prevent the onset of diabetes. He therefore emphasizes the importance of considering individual cases of diabetes from the point of view of their etiology.

On the other hand Ochsner does not consider that it has been by any means proved that a large proportion of cases of diabetes are due to disease of the pancreas. He has had the opportunity of operating on a large number of cases of pancreatitis, but only very few of the patients had also suffered from diabetes Whilst he acknowledges that it is undoubtedly true that there is danger from pressure on the islands of Langerhans in pancreatitis, he does not think that the autopsies which have been made in cases of this nature are yet sufficient to prove that this pressure causes diabetes.

Operations for Tumor in Diabetes.—Neoplasma are very rare in diabetes, but they do occur in exceptional cases. In 1888 Tuffier[23] collected 54 cases from the literature, 36 being malignant tumors, 13 benign growths, and 5 indefinite. Boas[24] found diabetes in only 12 of 366 cases of intestinal carcinoma, and Naunyn, in 777 cases of diabetes, found 1 case of carcinoma of the cheek, 2 of carcinoma of the stomach, and in addition 7 cases in which carcinoma of the stomach or liver was diagnosed, but in which the diagnosis was not confirmed by section.

Landau[25] and Hoffa[26] report two cases of operation for removal of pelvic carcinoma. The patients, who had previously suffered from diabetes, had been free from symptoms for some years, but glycosuria developed immediately after the operation, resulting in death from diabetic coma.

More recent observations, however, appear to indicate that the removal of tumors, more especially of those involving the genito-urinary tract, sometimes lead to the disappearance of glycosuria, even in cases of severe diabetes. Henkel[27] concludes, as the result of his own experience, that it is practically certain that the formation of tumors in the female genital organs may induce glycosuria, which is cured on the removal of the cause.

Bland Sutton thinks that as a rule it is advisable to abstain from hysterectomy in diabetic subjects, as he has gathered from the statistics that such operations are attended by a high mortality, but that in exceptional instances the operation is indicated. He reports two cases, in women of 43 and 69 years of age respectively, in which the urine contained sugar in considerable amount. Subtotal hysterectomy was performed, in one case for a large fibroid, and in the other for fibroid and suspected cancer of the uterus. At the time when the cases were reported both patients were alive and well, one three years and the other eight years after the operation. Joslin[28] reports a case of severe diabetes and fibro-myoma of the uterus, in which the sugar disappeared from the urine on removal of the growth. Miller[29] reports a similar case of severe diabetes and cancer of the uterus. When the case was reported, several months after removal of the cancer, the urine still remained absolutely free from sugar.

Manges[30] has recently reported two cases of severe diabetes and prostatic disease. In one of these cases, in which there was a family history of diabetes, removal of the prostate resulted in great improvement in the diabetes and disappearance of acidosis, the diabetes recurring with a fatal result one and a half years later. In the other case, in which the diabetes was of long standing, there was complete recovery and rapid disappearance of sugar, which did not return in spite of a liberal diet. The patient subsequently died from pus kidney.

In all of these four cases the disappearance of sugar was sudden and complete after the removal of the tumors, although in one of them there was a bad family history of diabetes.

The cases of this nature which have been reported up to the present are too few in number to allow of any conclusion as to

the cause of the disappearance of sugar after operation. Manges suggests, as the most probable explanation, that removal of the tumor may remove some nervous or toxic irritating agent, which in some way which is at present unknown to us, interferes with carbohydrate metabolism.

In conclusion I should like to refer to a few cases which have come under my own observation, in which I have considered it desirable to give the patients the benefit of surgical treatment in spite of the complicating diabetes.

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SYMPTOMS OF UREMIA AND THEIR INTERPRETATION*

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I HAVE been asked by the chairman to discuss the symptoms of uremia and their interpretation, limiting myself to the general aspects of the subject, and leaving to Dr. Howland the more characteristic and perhaps more important nervous manifestations.

In order to interpret intelligently the symptoms associated with any pathological condition, it is first necessary that we have a knowledge of the underlying causes of which the symptoms are the clinical expression. Uremia has long been regarded as a toxic condition, associated with nephritis and other renal diseases, but the nature of the poison or poisons producing it has not been yet determined. From the diversity of the symptoms produced—as convulsions in some instances and coma in others—it is probable that more than one poison is

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responsible for the symptom complex. As this question has already been dealt with by Professor Leathes I shall not enter into a discussion of it, but proceed at once to speak of the symptoms.

Uremia has been classified clinically as (a) fulminating, (b) acute, (c) chronic, (d) latent.

In the first variety the symptoms develop in their severest form with alarming rapidity and without previous warning, the patient often dying in a short time. This variety is most frequent in unrecognized cases of granular kidney.

The acute cases develop suddenly, but in cases where other phenomena, such as albuminuria, greatly reduced quantity of urine, increased urea in the blood, or other evidence of impairment of renal function, would put one on one's guard as to the probable development of uremia.

In the chronic type of uremia, gastro-intestinal symptoms are often a marked feature, though headache, twitchings, cramps in the muscles, especially of the calves, general restlessness, pruritus, impairment of sight and hearing, delirium, and eventually convulsions or coma, may appear. Chronic uremia is most frequent in parenchymatous nephritis, cystic disease, or late in advanced chronic interstitial nephritis.

The latent type, described by Sir William Roberts, occurs especially in double calculus pyelitis, with occlusion of both ureters, and consequently complete anuria. It has also developed where a compensatorily hypertrophied kidney has been removed, the other kidney being functionally inactive from disease. In these cases the patient may live seven or eight days or more without the ordinary symptoms appearing, and he may retain consciousness to the last.

Apart from the nervous manifestations of uremia, the gastro-intestinal are the most important. Persistent nausea, severe or uncontrollable vomiting, and at times diarrhea, are common symptoms. Stomatitis, either erythematous or ulcerative, may appear. The vomiting is in part an attempt at elimination of the poison, and in part due to the effect of the toxins on the medullary centres. The diarrhea is generally regarded as eliminatory, an attempt on the part of the bowel to assist the diseased kidneys. Advantage is taken by clinicians

of this valuable compensatory mechanism by the free use of saline aperients, which constitute probably our most efficient means of combating the disease. At times in chronic uremia a persistent diarrhea is associated with the presence of ulcers in the colon.

Next to the alimentary tract, the skin offers the most efficient route for the elimination of poisons. Whatever question there may be as to the excretory capacity of the skin in health, I do not think there can be any doubt as to its action in uremia. The sweat often has a urinous odor, and at times a crystalline deposit forms on the surface, the so-called urea-frost. An excellent example of the extent of this excretory capacity of the skin was afforded by a case reported before the Ontario Medical Association some few years ago by Dr. Rice, of Woodstock.

A young girl has complete suppression of urine for days, during which time she excreted large quantities of urine through the unbroken skin of the legs. The fluid had the chemical characteristics of urine. The normal renal function was eventually re-established.

Intense persistent pruritus is a common and readily understood symptom of uremia, due to the irritation of the cutaneous nerves by poisons in process of excretion. The value of promoting the action of the skin by baths, packs, diaphoretics and proper clothing is therefore apparent.

The respiratory system also shows evidence of the toxemia. The breath often has a urinous odor, though the amount of poison excreted by this channel is generally regarded as small. Two abnormal types of breathing may be manifested:

(*a*) One, a peculiar hissing type, sometimes called "goose-breathing," coming on suddenly and periodically, especially at night. It is not a very common symptom, but when present is exceedingly characteristic and not likely to be forgotten.

(*b*) *Cheyne-Stokes Breathing.* This may alternate with or follow the type previously mentioned. I saw a case some years ago in which these two types of breathing were present for months, and where the patient was unconscious for some weeks, but eventually made a partial recovery, and lived for four years.

Anemia of the secondary type is often a prominent and very important accompaniment of chronic uremia. It is gen-

erally regarded as due chiefly to the toxemia producing hemolysis, though undoubtedly the usually associated albuminuria and the interference with nutrition by gastro-intestinal disturbance are contributory factors. From the prognostic point of view, when severe it is a symptom of great significance.

The blood pressure in uremia is frequently, but not invariably high. Within the past three or four years I have seen eight cases where the syhygmometer registered from 240 cm. upwards, and the patients all had albuminuria and an associated retinitis. These cases represent the severest and most hopeless type of kidney disease. None of my cases lived a year. Uremic coma, myocardial insufficiency or intercurrent infection were the usual modes of termination. Two cases were in physicians of exemplary habits, good family history, and without any previous acute disease.

I would like especially to insist upon the serious significance of high blood pressure, anemia and myocardial weakness. Most clinicians, I think, will agree with Van Noorden's dictum that the prognosis in renal disease is usually determined by the condition of the heart.

Conversely, where there is no anemia, arterial hypertension or myocardial weakening, the results are often relatively good, even in severe chronic uremia. I have had a case under observation for the past fifteen years illustrating this clinical point.

The patient developed nephritis, following scarlet fever, at about ten years of age. His urine has been laden with albumin, in bulk varying from 10 to 15 per cent., abundance of hyaline, granular, epithelial and fatty casts. His blood pressure in the intervals of more acute attacks of uremia has never been increased. The heart is in good condition, with no evident hypertrophy, and he has only slight anemia. Two or three times a year he develops acute attacks, with high fever, rigors, intense headache, vomiting, and somnolence, verging on coma. He recovers in a few days, and attends to his usual duties until the next attack.

Apart from cases with albuminuric retinitis, the most hopeless ones are the insidiously developing cases of subacute or chronic parenchymatous nephritis, with general anasarca, marked anemia and albuminuria (large white kidney), and

heart weakness. The question as to whether these cases ever recover has been much discussed, but that they occasionally do so is beyond dispute. I reported an instance a few years ago. It would be interesting, though time will not permit, to discuss the prognostic significance of albuminuria.

Personally I take a much more favorable view of these cases than formerly, and would insist on the importance of individualizing and basing an opinion on the patient's general condition rather than on a too narrow consideration of the purely renal aspects of the case.

In recent years there has been a tendency to minimize the importance of urinalyses in renal disease, some going so far as to say that they are of no value in enabling us to form an estimate in a given case. While one may readily agree that formerly too much weight was attached to urinanalysis alone, and the "pisse prophets" frequently proved themselves unreliable guides, nevertheless I wish to express my strong personal opinion that properly made and carefully interpreted examinations of the urine form a very valuable part of the clinical picture of renal disease.

THE EXPERIMENTAL STUDY OF DIABETES*

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THERE have been two epochs in the history of the experimental study of diabetes: the discovery by Claude Bernard in 1857 of glycogen and the function of the liver in connection with carbohydrate, and the discovery by von Mering and Minkowski in 1888 in the laboratories at Strassburg of Naunyn and Schmiedeberg that removal of the pancreas causes a fatal glycosuria in dogs more like human diabetes than is any experimental condition known to us.

The experimental study of diabetes has been mainly following out the clues that these two discoveries furnished.

Claude Bernard's discovery led to all that we know of the regulation of the amount of sugar in the blood—all that we

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know and all that we are still learning; for in the last four or five years new methods for estimating sugar in the blood have been devised which now make it practicable to follow the variations in this respect clinically, and many new and surprising facts have been brought to light. We have learnt that the amount of sugar in the blood is 0.1%, or altogether less than 5 gr., most of it, perhaps all of it, in the plasma. That it is increased in diabetes two, five, or even sometimes tenfold, but that there is no constant relation between the amount of sugar in the blood and the amount in the urine. The old idea that the blood is like a reservoir, with an overflow pipe, the kidneys, and that as soon as the sugar in the blood reaches a certain percentage it overflows into the urine, is inaccurate and misleading. The sugar in the blood may at one time be ten times the normal and yet only traces may appear in the urine; at another it may be not even doubled and the urine contain 1% or more. Apparently the longer the diabetes has lasted the greater the tendency for high percentages of sugar in the blood to occur; partly probably to be ascribed to nephritic changes, partly perhaps to increased renal tolerance.

But if the blood normally carries less than 5 gr. of sugar, and we remember that the daily intake of carbohydrate is equivalent to from fifty to one hundred times this amount, that only emphasizes the importance of the machinery provided for the removal of the sugar from the blood by the tissue cells, and the storage as glycogen in the liver and elsewhere, the machinery discovered by Claude Bernard.

It is an astonishing thing to study the experiments of Pavy, Bang and others and learn that one hundred times as much sugar as the whole blood contains can in the course of a few minutes be injected into the veins without the sugar in the blood being at any time as much as doubled and without any appearing in the urine. It is so rapidly taken up from the blood by the liver, the muscles, the heart and other cells that it is impossible to make out where it all goes.

But the most interesting and important work in connection with the glycogenic function of the liver is that which has been done on the discharge of the stored carbohydrate as it is required for use. Claude Bernard knew that the liver gave up

its store when a part of the medulla near the vasomotor centre was irritated, and that this might be the case, too, when certain nerves were stimulated. At that time secretory nerves to glands were not known to exist, and he thought that the resulting glycosuria was to be explained by the circulatory disturbances set up by the diabetic puncture. It is now known that the diabetic puncture causes glycosuria—it is true only when the liver contains glycogen—but it is also known that for it to be effective the adrenals have to be intact, and also the nerves of the hepatic plexus have to be intact. For not only does puncture of the medulla cause glycosuria, due to a rapid discharge of hepatic glycogen, but so, too, do injections of adrenalin or stimulation of the hepatic nerve plexus. And the action of adrenalin is, in some way not properly understood as yet, effected through the nerves to the liver, and the action of the nerves on the liver dependent on the presence of the adrenals; the action of the medulla, transmitted through the great splanchnic nerves, depends on both adrenals and hepatic plexus.

This mechanism is concerned in a large number of the different forms of glycosuria that are best known, other than true diabetes; and since in diabetes itself it is the general rule that the liver contains abnormally little glycogen, it clearly is not unconcerned in this disease either. The glycosuric conditions in which probably it alone is concerned are the nervous glycosurias. The experiments of Cannon, in which cats confined in cages were exposed to the threatened attacks of a snapping dog barking and jumping at them, though unable actually to reach them, showed that the emotions of fear and rage cause glycosuria, and that this glycosuria is due to the adrenal discharge of glycogen from the liver, because the blood from such frightened animals contained sufficient adrenalin to inhibit the normal rhythmic contractions of strips of intestinal muscle suspended in it, while the blood from the same animals when quiet had no such effect. And moreover, after removal of the adrenals, the same animals frightened in the same way did not react either with glycosuria or with the occurrence in their blood of substances inhibitory for smooth muscle. Emotions and passions excite the adrenals, cause the discharge of glycogen into the blood, by hyperglykemia and glycosuria,

just as at the same time other effects of sympathetic excitation are witnessed—the eyes start from the head, the pupils dilate, the hair stands erect, the pulse quickens, the gastric and intestinal movements are inhibited, and the voluntary muscles are put on the stretch. The question whether diabetes has not sometimes its beginning in emotional states is an old one, but these facts awaken new interest in it.

Like the emotional glycosuria, including that which results from pain, that which accompanies disturbance of respiratory functions in partial asphyxiation, or CO poisoning after the administration of anesthetics, as well as that following the use of caffeine, morphine or strychnine is known also to depend upon the discharge of liver glycogen through the co-operation of the adrenals and the hepatic nerves. An important exception is the hyperglykemia and glycosuria that follows loss of blood.

It is interesting in this connection to note that in Addison's disease there is less sugar in the blood than is normal, as is also the case in animals from which the adrenals have been removed.

It is also interesting to note before leaving this part of the subject how much work has been done in the last few years upon the relation of the liver and carbohydrate storage to diabetes. A few years ago everyone's attention was engrossed in the working out of the other clue, the relation of the pancreas to diabetes, and it is only recently that interest has been reawakened in the line of study that Claude Bernard instituted. This reawakening was no doubt due to the discovery by Blum of the glycosuric action of adrenalin.

Von Mering and Minkowski's work on the excision of the pancreas which was done twenty-five years ago is well known. And it is well known, too, how it has led to the hypothesis that the pancreas provides an internal secretion, with which ligature of the ducts does not interfere, that is necessary in order that the cells of the body should be able to make use of and oxidize sugar. When this internal secretion is not present the sugar cannot be utilized, accumulates in all the body fluids and escapes in the urine. The proof that the pancreas does cause the presence in the blood of something that prevents glycosuria is perhaps best furnished by the experiments of Forschbach on parabiotic dogs. Two puppies had an incision through the

whole thickness of the abdominal wall in the flank, one of them on the right side, the other on the left, and the edges of the wound of the one animal were stitched to the edges of the wound in the other, and a condition after healing comparable to that in the Siamese twins was produced. The pancreas of one was removed, and both dogs remained normal; neither showed any glycosuria. Sometime later the parabiotic animals were separated by another operation; the one with its pancreas intact recovered normally; the other developed typical pancreatic diabetes at once.

PRESIDENTIAL ADDRESS, CANADIAN MEDICAL ASSOCIATION

BY C. J. MCGILLIVRAY, M.D., WHITBY, ONT.

LADIES AND GENTLEMEN:—

My first duty is to thank you for the honor you have conferred upon me in electing me to preside over this meeting. I do not flatter myself that this honor came to me personally because of individual merit, or for services rendered this Association; I take it that the honor was conferred upon a representative of that great majority of our profession in this Province—the General Practitioners, and more particularly the country practitioners, in whose ranks I labor.

The voice of the country practitioner is not often heard in this assembly, if we make one notable exception in the person of our esteemed friend, Dr. T. S. Harrison, for here are met the lecturers and professors of our schools, the clinicians and teachers of our hospitals; the specialists in every branch and department of medicine and surgery; the rotund, well-groomed, prosperous-looking general practitioner of the city; the consultant of Provincial reputation, and "members of the Academy of Medicine"; so that naturally the country practitioner, overawed by this array of talent, is not very aggressive nor assertive in meetings such as this. But come out with him into his own little bailiwick, and learn if his voice is always silent there. There we still find occasionally the old-fashioned

family physician, looked upon by half the countryside as the wisest of counsellors, the truest and most unselfish of friends, and who is ofttimes the social and intellectual beacon of his community. Whilst he is no expert in skiagraphy or the making of the Wassermann tests, in bacteriology or the microscopical examination of the blood, yet he must have a good working knowledge of obstetrics, of gynecology, of internal medicine, of minor surgery, of therapeutics, of affections of the eye, nose and throat, of hygiene and the public health, and a special knowledge of pediatrics, a subject too often overlooked in the schools. But what of his other duties? He must know how to draw a will. I have known him to act as judge of the prize babies at the fall fairs. He will be coroner, medical officer of health, examiner for a half-dozen life insurance companies, member of the Library Board, or more probably of the School Board. This is a very common duty. He will be a member of the Town or Township Council—This is another very common duty—or a member of the County Council or even of the Legislative Assembly. He is probably well known in social circles; and, odd though it may seem to some of you, well known in religious circles. He must be prepared at any time to take the platform and make a speech. Such are some of the activities—medical, social and municipal—of the country practitioner, who is so unobtrusive and non-aggressive in assemblies such as this. In the name of these men scattered all over the Province, I thank you for the honor conferred upon one of us by electing me to preside over this meeting.

I wish further to thank those who have labored so faithfully and given so much of their time and thought in preparation for this annual meeting. The programme is extensive and varied. It is the menu card of the annual feast prepared for you. I trust you have come here with appetites keen-edged for the discussion of things professional, old and new. For at this feast, as at all others, "*Fames est optimum condimentum.*"

For a portion of this programme we are indebted to our medical brethren of the great neighboring Republic. To them I extend a warm welcome from this Association. We are indeed pleased to have them with us. Reciprocity in medical thought is, and always has been, the world over, one of the out-

standing landmarks of the profession. This is one kind of reciprocity that we have no objection to in this country.

Without encroaching upon the field of the Committee on Necrology, I would like to recall the names of many of our brethren who have gone down "through the valley of the shadow" since our last meeting; but will content myself by mentioning only three—Dr. Daniel Clark, who for thirty years was Superintendent of the Queen Street Asylum, and was in my day the Lecturer in Mental Diseases—Dr. Fred. Fenton, the genial, kindly, companionable friend, whose sad, untimely death cast such a gloom over us all. He was with us last year in London, and at that time promised a long and successful career in his chosen work—and John Caven—what shall I say of him? I knew him best as I knew him first, as the young and boyish-looking Lecturer in Pathology in the University of Toronto, twenty-five years ago. At that time I thought I myself knew something of teaching, as I had been engaged in that work for many years, but I was glad to sit at the feet of John Caven and learn afresh the art of making obscure things plain and difficult things easy for the student. I have heard it said, and I can quite believe it true, that he was the best teacher of pathology that the University has ever had. His intellect was ever keen and alert. His witty remarks, quick repartee, sharp criticisms and boundless enthusiasm endeared him to his students and made his subject—dry and tiresome as it is apt to be—the best-liked on the curriculum. He was a great teacher. I like to remember him as such.

I do not propose to enter into a detailed survey or review of the many advances made in medical or surgical treatment during the last two years. I could not, if I would. Many of you are more competent to do that than I. I am rather going to content myself with a few remarks on matters which have interested the professon during my term of office; to act the bystander, as it were, watching the trend of events, rather than as one in "*medias res.*"

The annual meeting of the Medical Officers of Health and the annual meeting of this Association have this year both been held in the month of May. For the first-mentioned of these meetings, practitioners are brought to Toronto from every part

of the Province, even from the remotest parts. Would it not be wise for the officers of the two societies to get together and arrange that, on any future occasion when both meetings are due to meet in Toronto, a united meeting be held; or, if that be found unwise, that at least the meetings be held in the same week. Such an arrangement would be of mutual advantage. We might then have at our annual meetings some whom we rarely see here.

Sir James Whitney, in his short address at the opening ceremonies of the new General Hospital, announced that "the Provincial Legislature had decided to appoint a Commission to investigate the whole subject of medical education and the practice of medicine in the Province." Two most important questions over which so many wordy battle have been fought, viz., medical education and what constitutes the practice of medicine. "The term medicine," said Sir James in his announcement, "will include all plans or means of alleviating or curing human defects, disorders, diseases, or wounds. The powers of the Commission will include the rights and by-laws of the College of Physicians and Surgeons, of all universities, colleges and schools, and the teaching therein; also, of the osteopaths, dentists, opticians, Christian scientist, and members of any other class or creed engaged in the practice of any branch of Medicine." This announcement of the Premier was a most satisfying one. Whether or not such a Commission would be helpful in solving the vexed problem of what is absolutely essential in the way of medical education of the future practitioner, is very doubtful; for the views of those physicians graduated by the College of Physicians and Surgeons and the view of the irregular practitioner are as far apart as the poles. Let me illustrate the difference by a concrete example of two boys from my own town. In small communities it is easy to follow the career of our boys. One, A. B., passed up through the High School, matriculated into Queen's University, took two years in Arts, then took the double course of Arts and Medicine, and graduated this year B.A. and M.D. At the end of his six years' university course, standing on the threshold of the practice of medicine, knowing his own limitations, and disagreeably conscious of how little he knows of the great field of medical knowledge which

lies before him, much of which is still a veritable "*terra incognita,*" he has resolved on another year of study, and has become an interne of one of the Montreal hospitals. The other young man, C. D., barely reached the fourth reader in the Public School, never got within hailing distance of the High School, went out into life, got married, married a nurse, is said to have taken a six months' course in chiropracty by correspondence, then hung out his shingle in one of our flourishing Western towns as a full-fledged, duly qualified chiropractor; not, as in the case of the former young man, conscious of his own limitations, but bold, aggressive, cocksure. The poet's maxim:

> "A little learning is a dangerous thing:
> Drink deep, or taste not the Pierian spring,"

does not appeal to him; and, worst of all, he is recognized by the public as a regularly qualified practitioner. How long will this deplorable difference in the medical education, or lack of medical education, of the regular and the irregular practitioner be allowed to continue? Down through the centuries the medical profession has claimed to be, and has prided itself in being, one of the learned professions, and this claim, down to the present time, has been universally recognized as a just claim. How long will the world continue to recognize us as one of the learned professions, if the door to our profession is wide open to all who have little or no primary education before the study of medicine is begun, and whose technical studies are practically negative? Let us keep our ideals high; let us strive to live up to the reputations that the centuries have given up. I believe that the Medical Council and the universities are and have been alert on the question of medical education, of what is required for the Entrance or Matriculation Examination, and of what is required of students after their special study of medicine begins. Year by year the matriculation examination has been getting harder and harder. Many advocate that it should be still further raised so as to correspond with the examination at the end of the second year "Arts" course of the University. And, year by year, the time for the technical study of medicine required of students is being prolonged, until the three-year

course has been discontinued for the four-year course, and the four-year course for the five-year course. I repeat that I do not think that the Medical Council and the universities have been remiss in the matter of the education, primary and technical, of those whom they can control. What about those over whom they have no control—the Christian scientists, the osteopaths, the chiropractors, *et hoc omne genus*. There are those of us who, in our innocence, confidently thought that the Medical Council could control throughout the Province every form and variety that the practice of medicine could assume. But such confidence has long since vanished into thin air. Welcome the suggestion of Sir James Whitney. Let us have a Commission. Let us have it clearly declared:

1st.—What is meant by the practice of medicine.

2nd.—What primary education is required before entering upon the study of medicine.

3rd.—What technical education is required after the study of medicine has been begun.

The following quotation from one of the medical journals embodies my view of this question: "If Sir James Whitney establishes a Commission made up of men of the highest type, who know the situation, and who are likely to back up the Medical Council and the universities in their endeavors to make medical education in Ontario worthy of this great Province, good will result. We would humbly suggest that there is but one way to bring about the desired result. That is, establish a high standard, and make all "pathies" and faddists conform to this standard. It is a simple matter to answer the query: how many of the "pathies" would remain if this rule were adopted? The eclectics have disappeared; the homeopaths are almost extinct, and the osteopaths, chiropractors, faith healers and other peculiar sects will cease to exist just as soon as they are forced to spend five years in study and pass examinations of the stringent kind. Under these conditions, very few will be anxious to remain under the shelter of the charlatan banners. Scientific medicine has no apologies to offer for its existence, and any government failing in its duty to uphold it will be guilty of interfering with the best interests of the public it serves."

It is very pleasant to comment upon the fact that, since the last meeting of this Association, the Dominion Medical Council, in accordance with the conditions of the Canada Medical Act, has been organized, and the first examination held. Dr. Roddick, whose courage, diplomacy and untiring perseverance brought this result about, must be more than gratified. It was in 1902 that the "Roddick Bill," or Canada Medical Act, was introduced into and passed by the Dominion House. The first and apparently insuperable difficulty that met this bill in its progress came from the Provinces. They, and not the Dominion House, had complete control of all matters pertaining to education, and they were unwilling to give up their prerogative. It took nine long years of continuous effort on the part of Dr. Roddick and those associated with him to persuade the Provinces that it was to their advantage to accept the Act. In 1911 the Act was amended and became operative when a so-called "enabling clause" had been passed by each of the Provinces. This was done in 1912, and the Canada Medical Act was in operation. The next step was to form the Dominion Medical Council in accordance with the terms of the bill. On November 7th, 1912, the members of the Council, representing every Province and every University and College in the Dominion, met in Ottawa for the purpose of organization. They very properly elected Dr. Roddick as their first President; formed Committees; laid their plans, and adjourned to meet again in the same place in June, 1913. At the adjourned meeting they completed their organization; selected July 1st, 1913, as the first day of registration for practitioners holding Provincial diplomas for ten years or more, and appointed October 10 to 17, 1913, at Montreal, as the time and place for the first examination under the Act. It must have been particularly pleasing to Dr. Roddick to have been present at and to have witnessed, in his own well-loved University of McGill, and in his own city of Montreal, the holding of the first examination under the new Act.

Now that the Dominion Medical Council is an accomplished fact, it is merely a mild expression of the truth to say that only a big man would have tackled the job, and that only a big man could have brought it to a successful issue. If ever a man de-

served the gratitude of the medical men of Canada, that man surely is Dr. T. G. Roddick. I trust that a resolution, expressive of the appreciation of this Association for service done will be presented to Dr. Roddick before the sessions close.

In the official programme which you have in your hands, you will see that notice of motion has been given for the separation of this Association from the Canadian Medical Association. The Provincial Association of Ontario was the first to affiliate with the National Association, and all the other Provinces, with the exception of Quebec, have followed her good example. Is Ontario to be the first to separate? And will the other Provinces follow her bad example? President after President of yours, in his annual address, has urged the formation of city and county Associations all over the Province; (you are to have a report on that very question to-day); and that such Associations become affiliated with the Provincial Association, just as the Provincial Associations are affiliated with the National; and further, that membership in the city and county associations would entitle to membership in the Provincial Association, just as membership in the Provincial Association would entitle to membership in the National. Thus the various Medical Associations of the whole Dominion would be cemented together by bonds of common interest. Was the whole scheme, as laid before you by your former Presidents, a possibility, or was it merely a beautiful dream? The whole scheme will be guillotined, its head cut off, as it were, if this Association approves of the motion of separation of which notice has been given. We do not disagree with the advocates of separation who say that affiliation has worked, in some respects to the disadvantage of the Association; but surely there have been some compensating advantages. If our agreement with the National Association, made at the time of affiliation, has worked to our disadvantage; if we have grievances, as I believe we have; if we have suffered in the loss of our annual meetings of 1910 and 1913, and also in our financial arrangements, as claimed, surely these grievances can be remedied without recourse to such drastic measures as separation. The whole question will be before you this afternoon for discussion. Let wise and sane counsels prevail. If permitted to make a suggestion, I would suggest that prudent representa-

tives from both Associations be appointed, that they meet, adjust their differences, make a new agreement if deemed wise, and report to their several associations for approval at the first possible opportunity. But whatever you do, don't to-day approve of a motion of separation. Ever remember that the friends of the one Association are the friends of the other.

By again referring to your programme, you will see that a resolution will be submitted to you re "Workman's Compensation Bill." At the recent session of the Provincial Legislature an Act was passed entitled "Laws relating to the liability of employers to make compensation to their employees." You are all familiar with the agitation which this proposed legislation caused among medical men. The members of the Medical Council and of the Academy of Medicine of Toronto were especially energetic in their opposition to the passing of the bill. We take this opportunity of thanking the members of these two societies for the opposition they put up, for the campaign of instruction as to the nature of the bill which they carried on, for the pressure they brought to bear upon the Government by argument and by appeal, in order to secure a proper recognition of the rights of the medical man and a proper guarantee of remuneration for services performed.

No one has any fault to find that such an Act should be on the statute books. There was an Act somewhat similar on the statute books before, viz, "The Employers' Compensation Act"; but in it the medical or surgical expenses became an important part of the claimant's account for his injuries; whereas, in the new Act no provision is made for the medical or surgical expenses. The basic principle of the whole Act is that neither the injured, nor his friends, nor the municipality shall bear the expenses due to the injury, and yet, *mirabile dictu*, the first thing the injured is called upon to do is to contract an expense for medical or surgical aid. To the one that has been injured some things can be dispensed with; some things are luxuries; but the prompt and skilful attention of one or more members of the medical profession is a necessity—a first and absolute necessity. And yet no provision is made for these who, by their presence, may save life or limb. They are, however, left liable, as before, for suits for malpractice. This omission to provide

medical help for the injured is the weak spot of the Act, and if the weak spot be not strengthened, the whole Act may prove unworkable.

The members of the Medical Council and of the Academy of Medicine in particular, and the profession in general, pointed out to the Legislature this weakness in the Act, suggested amendments which would strengthen it, directed their attention to similar Acts in various States to the south of us; but to no purpose. The Act went through as originally drafted. Amendments must surely come. Sir William Meredith, who drafted it, has said, "He does not claim that the Act is perfect, or that the last word has been said." That the last word has not been said is the view of many. Let us therefore persist in our endeavor to secure what we deem our due. I bespeak a cordial reception and support for the resolution about to be submitted.

I must not close without making some reference to the "Hospital for Insane," which is in the course of erection at Whitby.

Perhaps some of you will remember a very interesting article on "The Ontario Hospitals for Mental Diseases," read before the Canadian Medical Association in 1912 by Dr. Ryan, Superintendent of Rockwood Hospital, Kingston. I am taking the liberty of repeating some of the information contained in that article.

Prior to 1905, therapeutic measures, laboratory work, research work, and pathological work were almost unknown in the hospitals for the insane of the Province. Few records of patients, if any, were kept. The disturbed patients were restrained by drugs, locked doors and iron bars. The Government, through the Department of the Provincial Secretary, the Hon. W. J. Hanna, took advantage, in 1905, of the retirement of a number of the superintendents to bring about a radical change of method in connection with these hospitals. A commission was sent to Europe to examine the system used in Germany and other countries. Three times Commissions were sent to visit the most advanced state hospitals in the neighboring Republic. Fortified with information thus obtained, a conference of the superintendents, assembled for the purpose, adopted a new system of classification and of treatment, which was at once put into operation in all the hospitals of the Province.

Now, patients are carefully examined both as to their mental and physical condition; laboratories have been established; pathological experts appointed, dieticians engaged, complete records kept, and training schools for nurses established. Therapeutic measures are employed; hydrotherapy, electrotherapy, massage are in constant use. In a word, the inmates who require treatment are treated as patients in any other hospital are treated.

What are the results? Restraint disappeared, straight-jackets burned, drugs used for therapeutics only, bars gone from the windows and locks from the doors, the noise and turmoil changed to the calm quietness of the sick-room, the percentage of recoveries substantially increased, the people losing their dread of these hospitals, physicians sending in patients for treatment, voluntary patients received and treated—the "open door" to these hospitals established.

Dr. Ryan, in closing his address, paid a graceful tribute to the Provincial Secretary, as the man, above all others, who had made this change possible for us in Ontario.

Mr. Hanna must have been gratified at this open recognition and public acknowledgment of the good work done in and through his Department for the patients of the Hospitals of the Insane, and might have rested on his laurels and been content; but just about the time Dr. Ryan's address was delivered, new and still greater opportunities for service presented themselves, and the Provincial Secretary rose to the occasion. The Queen Street Asylum in Toronto had been sold; the old system of housing so many and such varied cases under the one roof had long been condemned. New quarters must be secured. This was Mr. Hanna's opportunity. If good results had been accomplished under the old conditions, still better results might be expected under the new. The Government can now pick out their own site, can erect a hospital in accordance with the very latest view as to best methods of classifying and housing the patients. A block of land of six hundred and forty acres, including several farms, was secured at Whitby. The site selected is an ideal spot on the lake front, just such a place as is chosen for a summer resort, with beautiful Lake Ontario to the south, the sheltered waters of Whitby Bay to the east, the Town of

Whitby to the north. If environment means anything in the treatment of the sick, what site could be more desirable than the one selected?

On this site the Government proposes to erect a Hospital Village. A good deal of the work has already been done; farm lands underdrained, roads made, walks laid, a railway spur from the Grand Trunk Railway put in, sewerage system installed, light and water system installed, seven cottages erected and almost ready to be occupied. A good start has been made. I cannot enlarge fully upon the plan of the Government as to what buildings are to be built, and how arranged, as their plans as yet are merely tentative and subject to many changes; but in general terms I might say that they propose erecting close to the lake front several hospitals for all acute cases, for all newly admitted cases, and for cases sent in by physicians for treatment, in which hospitals all patients requiring treatment will receive the care and attention that the most modern hospitals afford.

At some considerable distance away from the lake front a whole series of cottages are to be erected for patients not requiring medical treatment, but merely supervision of personal hygiene, the most easily managed patients, and those who will work. Off in another direction a number of cottages for private patients are to be built.

In all the buildings used as hospitals not only will liberal provision be made for the treatment of patients, but liberal provision will also be made for medical research work, for pathological research work, for laboratory work, and for general neurological study or investigation. In a word, the Government is resolved to make the "Whitby Hospital for the Insane" the most complete of its kind, so that when finished it will be a credit to the Province, the pride of her people, the best on the continent.

Many visitors, especially visitors interested in phychiatry, have already visited Whitby to see the site, and to learn something of what is proposed to be done. Let me, in his own words, give you the impression of one of these visitors—Dr. H. I. Kloff, Superintendent of the Hospital for the Insane at Allentown, Pa.—who, before leaving for home, being interviewed, said: "I

came to Toronto for the purpose of inspecting the plans and site for the Hospital for Insane at Whitby. I regard the site as ideal, in many respects superior to any other similar institution in America. The plans, which have been prepared with great care, and after studying the latest improvements in building both in Europe and America, embrace all the best facilities for hospital treatment and custodial care of the insane. The arrangement of the different buildings and the site selected will certainly make the new institution a model which will be most creditable to Ontario. The great work being done in Ontario in your reformatory, industrial farms and hospitals is often commented on in the United States, but it requires a personal visit such as I have made to demonstrate what is being done in the Province."

Perhaps I have dwelt at too great length on this subject; but I have no apology to offer, for I have felt that whilst the work that Mr. Hanna and his department have done in prison reform and matters pertaining to the public health, in rescue work and in the establishment of shelters for neglected children is pretty well known, his work in connection with hospitals for the insane is not generally recognized.

En passant I should perhaps mention that much of the work at Whitby is being done by prison labor—a camp of one hundred and twenty to one hundred and fifty men from the Central Prison being always present. The whole question of the prison farm and prison labor is an intensely interesting one, one that has come much under my notice during the last two years; but I shall add nothing further on the subject, as we hope, before the sessions are over, to hear from Mr. Hanna himself on that question.

In conclusion, I thank you for your attentive hearing, and trust that you will find all the sessions of this annual meeting both enjoyable and profitable.

SPASMODIC TORTICOLLIS

CHARLES SHEARD, JR., M.B., TORONTO, M.R.C.P., LONDON.

Spastic wryneck or rotary spasm of the neck muscles, is a condition where there is intermittent clonic spasm of the neck muscles, causing the head to be rotated so that the chin comes to point to the opposite shoulder away from the side where the spasm is located. The interesting feature about the condition is that the spasm occurs principally in those muscles innervated by the spinal-accessory, although it has long been pointed out that the spasm is not limited to the sterno-mastoid and trapezius, but that in most cases the deep muscles of the neck which are innervated by the upper cervical nerves are also involved in the spasm. Fagge as early as 1886 drew attention to this fact. It seems likely, however, that although the spasm is not limited to those muscles supplied by the spinal-accessory, the deeper cervical muscles are affected secondarily, the spasm being originally confined to the trapezius and sterno-mastoid, later spreading and involving neighboring muscles. The same thing is seen in facial spasm, where the intermittent spasm is usually confined to the facial muscles, e.g., those supplied by the facial nerve, although it is common to see the spasm spread and later involve other muscles, such as those of the neck which are not supplied by the facial. Further evidence in support of this is shown by the effect of faradization upon the cortex, when a weak faradic current is supplied to a spot on the motor cortex, spasm of one muscle is produced, while if the application is repeated two or three times in quick succession adjacent muscles are involved in the spasm. The same result can be obtained if the strength of the current is increased, until a whole limb is involved in a convulsive seizure.

Our knowledge of involuntary muscle spasm seems to show that in every case it is the cortex, rather than the lower neuron which is at fault. Thus lesions of peripheral nerves do not provoke muscular spasm, and it is absent in neuritis, while in meningitis the spastic condition of the neck muscles is probably due to cortical irritation. Perhaps the most striking example of involuntary muscular spasm being due to a lesion of the upper neuron, is evidenced by the phenomena of athetosis, that peculiar involuntary movement of

the hand and forearm, seen in hemiplegic children where the lesion is an encephalitis affecting the motor cortex.

In view of these facts which seem to place the cause of involuntary muscle spasm in the cortex, it is interesting to note those cases where the spasm closely follows the distribution of some peripheral nerve. These should not be considered cases of lower neuron disease, and the division of the nerve should not be undertaken, as the spasm is likely to recur in other groups of muscles. These spasms are probably allied to the tics and depend upon some condition of the cortex, possibly functional, which results in loss of cortical control over the affected group of muscles.

A recent case on Dr. Anderson's service at St. Michael's Hospital, was a striking example of involuntary muscle spasm following the distribution of the spinal accessory nerve. The laryngeal muscles which are ennervated, through the vagus, by the accessory portion of the spinal accessory, were affected as well as the sterno-mastoid and trapezius. The patient was admitted to the hospital with a left sided spasmodic torticollis of seven years duration. The left sterno-mastoid was greatly hypertrophied as was the trapezius to a lesser extent. Intermittent clonic spasm of these muscles occurred every few seconds. Similar spasm occurred in the opposing muscles on the right side of the neck, and was probably induced in an effort to overcome the rotary movement of the head. The original seat of the spasm appeared to have been the left sterno-mastoid and trapezius, according to the patient's history as well as by the degrees of hypertrophy exhibited by these muscles.

The patient's voice was strikingly affected, and he had noticed this change in his voice before the spasm of the neck muscles occurred. The voice varied much in pitch, and even in a short sentence would at times be normal, sinking to a whisper at other times. He had periods of aphonia lasting several minutes. His voice might be described as stuttering, his sentences being split up into disjointed groups of words, although there did not appear to be any difficulty in articulating individual words. Examination of the larynx failed to reveal anything abnormal.

In view of the fact that the internal or accessory portion of the spinal accessory nerve joins the vagus, and that these

motor fibres are eventually distributed by means of the superior and recurrent laryngeal nerves to the muscles of the larynx, it seems reasonable to suppose that there was some very definite connection between the involuntary spasm of the sterno-mastoid and trapezius, and the peculiarity in the patient's speech. That the altered speech was due to some inco-ordination or abnormal spasm of the laryngeal muscles, would seem to be the natural explanation.

The older authors in calling the condition spinal accessory tic would appear to have a good deal of justification for the use of the term. If we define tic as an involuntary muscle spasm partially under the control of the patient's will, spinal accessory spasm would conform to this definition, to the extent that the spasm is somewhat under the control of the patient's will. This case, the spasm was arrested for a time when the patient's attention was concentrated upon anything: thus, although it was impossible for the barber to shave the patient, he was able to shave himself quite well with an ordinary razor, and even to cut his own hair.

Division of the spinal accessory nerve does not give satisfactory results, and it seems clear that the trouble is located in the cortex, although no change can be demonstrated histologically, still there is probably loss of cortical control sharply limited to that part of the motor cortex associated with the spinal accessory. The removal of this part of the cortex would seem the rational method of treatment, but unfortunately in our present state of uncertainty regarding its exact localization, such a procedure is hardly practicable.

REFERENCES.

1. Reynolds—Torticollis.
2. Fagge—Spasmodic Wryneck.
3. Taylor—Spasmodic Torticollis.
4. Risien Russell—Torticollis Tic.
5. Chiene—Spasmodic Torticollis.
6. Kocher—Operative Surgery.
7. Campbell Thompson—Diseases of the Nervous System.
8. Remark. Involuntary Muscle Spasm—Modern Medicine, Vol. V.
9. Russell, J. S. R.—Brain, 1897, p. 35.

45 Bloor St. East.

Society Proceedings

THE THIRTY-FOURTH ANNUAL MEETING OF THE ONTARIO MEDICAL ASSOCIATION

The thirty-fourth annual meeting of the Ontario Medical Association convened in the Medical Building of the University of Toronto, Queen's Park, on May 26th, 27th and 28th.

We wish to take this opportunity of congratulating Dr. McGillivray, President; Dr. F. Arnold Clarkson, General Secretary; Dr. J. H. Elliott, Treasurer, and the different Committees on the result of their efforts to make this year's meeting a success. The meeting was the second largest in the history of the Association, having a registration of 286 members, the largest meeting having taken place in 1912, with a registration of 391 members. We, of course, regret extremely that but 78 members from out of town were present. We think that the profession throughout the Province should support the Ontario Medical Association much more enthusiastically than they do, by their presence.

We take pleasure in giving our readers in this issue the benefit of the President's address, which is well worthy of careful perusal. The addresses by Dr. Finney, of Johns Hopkins University, Baltimore; Dr. B. P. Watson, Toronto, and Dr. E. Libman, of Mount Sinai Hospital, New York, we hope to reproduce in a later issue.

The Association opened on Tuesday morning, May 26th, at 10 o'clock, dividing itself into two Sections, Medical and Surgical, meeting respectively in the North and South lecture rooms.

The following programme was carried out with but few exceptions:

TUESDAY, MAY 26TH.

SECTION MEETINGS.

10 *a.m.—Medical Section.*

(In North Lecture Room.)

1. *Case of Tetanus Treated by Carbolic Acid, with Recovery*—Dr. J. T. Fotheringham.
2. *Artificial Pneumothorax in the Treatment of Tuberculosis*—Dr. C. D. Parfitt.

3. *Vincent's Angina, Reports of Cases*—By Drs. P. Goldsmith, D. Gibb Wishart, and Brefney O'Reilly.
4. *Syphilitic Splenomegaly Simulating Banti's Disease*—Dr. H. B. Anderson.
5. *Case of Splenectomy in Banti's Disease*—Dr. J. S. N. Magwood.

10 *a.m.—Surgical Section.*

(In the South Lecture Room.)

1. *Acute Intestinal Obstruction*—Dr. F. N. G. Starr. Discussion opened by Dr. Rutherford (Stratford).
2. *Cardiospasm*, with exhibition of two cases—Dr. J. K. McGregor, Hamilton.
3. *Some Complications in Hysterectomy for Fibroids*—Dr. N. A. Powell. Discussion opened by Dr. Gibson, Belleville.

Exhibition of Specimens to illustrate Dr. E. Libman's lecture on Subacute Bacterial Endocarditis.

Afternoon—2 o'clock.

1. *President's Address*—Dr. C. F. McGillivray.
2. *Symposium on "Syphilis."*

a. General Aspects, Cutaneous Manifestations, Diagnosis and Treatment, illustrated by lantern slides—Dr. J. A. Fordyce, New York.

b. Syphilis of the Nervous System—Dr. Arthur Ellis, Rockefeller Institute, New York.

c. Syphilis from the Standpoint of the Officer of Public Health—Dr. J. S. W. McCullough.

d. Statistics—Prepared by Drs. D. Graham and Dr. R. W. Mann. Discussion.

3.30 *p.m.—Business Meeting.*

1. Reading of Minutes.
2. Election of Nominating Committee.
3. Reports of Officers.
4. Reports of Committees.
 (1) Necrology—Dr. J. H. Elliott.
 (2) Audit—Dr. E. Ralph Hooper.
 (3) Special Committee on the Question of Fees, etc.—Dr. H. B. Anderson, Chairman.
 (4) Credentials—Dr. R. R. Wallace.

(5) By-laws—Dr. J. W. S. McCullough.
(6) Ethics—Dr. A. B. Osborne.
(7) Special Committee on the Amalgamation of the County Societies—Dr. F. Arnold Clarkson.

5. Motions of which notice has been given—
 (1) Dr. A. H. Wright, *re* the separation of the Ontario Medical Association from the Canadian Medical Association.
 (2) Dr. Harley Smith, *re* a committee for the consideration of all resolutions.
6. Resolutions—
 (1) *Re* the Workmen's Compensation Act.
7. Notices of Motion.

Evening—8 o'clock.

1. *Address in Surgery*—By Dr. Finney, of Johns Hopkins University, Baltimore, "The Cause of Failure in Operations for Cholelithiasis."
2. *Address in Obstetrics*—By Dr. B. P. Watson.

WEDNESDAY, MAY 27TH.

Clinics and operations at the General Hospital and at the Hospital for Sick Children, and demonstrations in the Pathological Building, all beginning at 9 a.m.

SICK CHILDREN'S HOSPITAL.

Surgical Section—To be presented by Drs. C. L. Starr, W. E. Gallie, D. E. Robertson, and Bruce Robertson.

1. *Congenital Dislocation of Hip.* Results of operation.
2. *Bone Grafting for Pott's Disease.* Results of operations.
3. *Tendon Fixation and Transplantation.*
4. *Fractures of the Elbow, Humerus and Femur.* A study of the results of treatment and a demonstration of methods.

Operations.

1. *Congenital Dislocation of Hip.*
2. *Abbott's Treatment of Lateral Curvature of the Spine.*
3. *Tendon Fixation and Transplantation for Infantile Paralysis.*
4. *Bone Grafting.*

Medical Section.

9 a.m.—*Demonstration of Cases in Wards*—Dr. Allen Baines.
10 a.m.—*Rheumatism in Children*—Dr. Jos. S. Graham.

10.30 a.m.—*Meningitis in Children*—Dr. Canfield and Dr. Newell (Watford).
11 a.m.—*Congenital Syphilis*—Dr. George Strathy.
11.30 a.m.—*Birth Palsies*—Dr. Geo. Boyer.

TORONTO GENERAL HOSPITAL.

Medical Clinics—
9 a.m.—(1) *Cretinism,* (2) *Aneurysm*—Dr. A. McPhedran, Ward G.
9 a.m.—*Cardiac Cases, illustrating various Lesions; Graphic Methods of Examination*—Drs. Andrew R. Gordon and Jno. Oille, Ward G.
10 a.m.—*Diseases of the Stomach*—Dr. G. Chambers, Ward H.
10.30 a.m.—*Demonstration of Effect of Treatment in Heart Disease*—Dr. R. D. Rudolf, Ward H.
11 a.m.—*Anemias*—Drs. Fotheringham and Burson, Ward I.
11.30 a.m.—*Spastic Paraplegia and Treatment with* 606—Dr. W. B. Thistle, Ward I.
9 a.m.—*Tuberculosis*—Outdoor Department—Drs. Parsons, Parfitt and Caulfeild.
9 a.m.—*Skin Clinic*—Nurses' Lecture Room—Drs. D. King Smith, G. E. Smith and Trow.
9 a.m.—*Neurology*—Outdoor Department—Drs. Howland and Armour.
11 a.m.—Syphilis—Demonstration of Wassermann Test, with Cases—Dr. D. Graham, Room 38, Pathological Building.
9 a.m.—*Cholelithiasis*—Dr. W. Goldie, Outdoor Department.
11 a.m.—*Pathology,* Autopsies and Fresh Specimens in the Morgue, Pathological Building—Prof. J. J. McKenzie.

Surgical Clinics—
9 a.m.—*Diagnosis and After-treatment*—Mr. I. H. Cameron, Ward A.
9.30 a.m.—*Injuries of Abdominal Viscera*—Dr. A. Primrose, Ward C.
10 a.m.—*Acute Abdominal Emergencies*—Dr. H. A. Bruce, Ward B.
11 a.m.—*Graves' Disease*—Dr. G. A. Bingham, Ward B.
9 a.m.—*Fractures*—Outdoor Department.
1. *Non-Operative Treatment*—Dr. Shenstone.
2. *Operative Treatment*—Dr. J. A. Roberts.

9 a.m.—*Gastro-intestinal Diseases*—Lecture Theatre.

1. *Surgical Treatment*—Dr. F. N. G. Starr.
2. *X-ray Findings*—Dr. E. Stanley Ryerson.
3. *Chemical Findings*—Dr. F. W. Rolph.

OPERATIONS.

Operations in all the theatres during the whole morning.

Afternoon—2 p.m.

2 p.m.—*Address in Medicine*—Dr. E. Libman, Mount Sinai Hospital, New York—"*Subacute Bacterial Endocarditis.*"

3 p.m.—*Business Meeting*—

(1) Report of Committees.
(2) Unfinished Business.
(3) New Business.
(4) Installation of Officers.

THURSDAY, MAY 28TH.

Morning—Clinics at Grace, Western and St. Michael's Hospitals.

GRACE HOSPITAL—9 A.M.

Service of Dr. B. L. Riordan; assistants, Drs. McConnell and Thomas—Treatment of fractures and dislocations; demonstration of when to use Lane's plates. Removal of spleen, stab wound, with case.

Service of Dr. J. Milton Cotton; assistants, Drs. McPherson and Hooper—Wertheim's operation for procidentia uteri; demonstration of cases previously operated on. Single stitch operation for perineorrhaphy. Intestinal stasis; treatment by Coffee's slinging operation, and ileo-sigmoid-ostomy, with cases already operated upon. Bastianelli's operation for cancer of large bowel, with demonstration of case. Case of Leontiasis ossea.

Service of Dr. W. H. Harris; assistants, Drs. Gilmour and Cerswell—Two cases of decompression for brain tumor. Two cases of tubercular kidney. Post-operative abdominal ptosis. Ureteral catheterization and renal surgery demonstration.

Service of Drs. Hamilton, Noble and Griffith—Medical cases of interest in the wards.

The Diagnosis of Gastric and Intestinal Disorders by means of the X-ray. Plates, with cases—Dr. Chas. Treble.

Demonstration of Clark's new gas-oxygen-ether sequence for prolonged anesthesia—Dr. Herbert Holm.

WESTERN HOSPITAL.

Medical Clinics—

9 a.m.—*Tuberculosis*—Dr. J. H. Elliott. Discussion by Drs. W. E. Ogden, F. C. Neal (Peterborough), W. J. Dobbie, and Geo. H. Carveth.

10.30 a.m.—*Anemia.*—Dr. H. B. Anderson. Discussion by Drs. Williams (Bracebridge), J. Ferguson and W. J. Wilson.

Surgical Clinics—

9 a.m.—*Hernia Operations Under Local Anesthesia*—Drs. Ingersoll Olmstead (Hamilton) and A. H. Perfect.

10 a.m.—*Operation of Cesarean Section*—Dr. S. M. Hay.

11 a.m.—*Diagnosis and Treatment of Perforation of the Stomach and Duodenum, with patients*—Dr. S. M. Hay. Discussion by W. T. Parke (Woodstock), W. Heggie, and H. A. Beattie.

ST. MICHAEL'S HOSPITAL.

Medical Clinics—

10 to 12. *Clinic in Wards* 207 *and* 307, *under the direction of R. J. Dwyer.*

(1) A series of cases of mitral stenosis.

(2) A series of pathological specimens illustrating mitral stenosis.

(3) Electrocardiograms from cases of mitral stenosis.

(4) A case of congenital elephantiasis.

(5) A case of acromegaly (Dr. Guinane).

(6) A case of partial heart block (Dr. J. H. McPhedran).

Following the clinic in the wards, a demonstration of the electrocardiograph was given in the X-ray room by Dr. Julian Loudon.

Surgical Clinics—

9 a.m.—*Operation for Inguinal Hernia*—Dr. Wallace Scott.

10 a.m.—*Amputation of Breast for Carcinoma*—Dr. Walter McKeown.

10 a.m.—*Cases illustrating the results of Intestinal Anastomosis* (Ward 107)—Dr. J. F. Uren.

10.30 a.m.—*Cases illustrating Injuries to the Musculo-Spinal Nerve* (Ward 107)—Dr. M. H. V. Cameron.
11 a.m.—*Prostatectomy*—Dr. Edmund E. King.
11 a.m.—*Demonstration with the Cystoscope*—Dr. George E. Wilson.
12 a.m.—*Operation for Uterine Fibroids*—Dr. G. Silverthorn.

In the intervals between the above operations the following cases from the wards were shown in the operating theatre by Drs. McKeown, Silverthorn, Scott and Wilson: Angioma of Spinal Cord, Sarcoma of Testis, Reconstructed Hand, Traumatic Pneumothorax, three cases of Imperforate Anus, Gangrene following Fracture of the Femur.

Obstetrics and Gynecology.

GENERAL HOSPITAL—WEDNESDAY.

9 a.m.—*Obstetrical Demonstration*—Obstetrical Building—Drs. B. P. Watson, Kinnear, and Mabee.
Abderhalden's Test—Dr. J. G. Gallie.

ST. MICHAEL'S HOSPITAL—THURSDAY.

9 a.m.—(1) *Use of the Pelvimeter.* (2) *Abdominal Palpation*—Drs. M. M. Crawford and J. S. N. Magwood.

Gynecology—

GENERAL HOSPITAL—WEDNESDAY.

9 a.m.—*Gynecological Demonstrations*—Drs. Watson, Marlow, Hendry and Hendrick.

ST. MICHAEL'S HOSPITAL—THURSDAY.

9 a.m.—*Repair of Perineum and Vagina*—Dr. F. A. Cleland. Room 309.

Eye-Ear-Nose-Throat Section.

Operations began in the theatre in Ward E at 8 a.m. on both mornings, the 27th and 28th.

Wednesday, May 27th.

9 a.m.—*Demonstration of Tonsil Removal:*
Sluder Method—Dr. N. K. Wilson.
Leland Method—Dr. Alex. McKelvie.
9 a.m.—*Demonstration of Sub-mucous Resection*—Dr. J. C. Calhoun.

9.30 a.m.—*Demonstration of Results of Mastoid Operation in Cases Complicated with Sinus Thrombosis*—Dr. R. S. Pentecost.

10 a.m.—*Radical Mastoid Operation*—Dr. Gilbert Royce.

10.30 a.m.—*Presentation of cases, specimens, and case reports*—
Hereditary Optic Atrophy; Retinitis Pigmentosa; Embolism of Central Artery—Dr. R. A. Reeve.
Dermoid of Conjunctiva—Dr. Mortimer Lyon.
Ptosis; Trichiasis—Dr. Geo. McLaren.
Suppurative Otitis Media treated with Zinc Ions—Dr. Hereward Livingstone.
Tubercular Keratitis—Dr. Colin Campbell.
Case Report of Cerebellar Abscess, with Specimen—Dr. D. J. Gibb Wishart.

THURSDAY, MAY 28TH.

9 a.m.—*Demonstration of Use of Yankauer's Curettes in Closure of Eustachian Tube, with Cases*—Drs. D. J. Gibb Wishart and Alex. McKelvie.

9.30 a.m.—*Demonstration of Dilatation of Oesophageal Stricture*—Dr. Edmund Boyd.

10 a.m.—*Demonstration of Scleral Trephining*—Dr. R. A. Reeve.

10.30 a.m.—*Cases in Practice, etc.*—
Results of Radium Treatment—Dr. G. S. Ryerson.
Post-neuritic Optic Atrophy—Dr. J. C. Patton.
Primary Sarcoma of the Iris—Dr. N. B. Buchanan.
Keratosis Pharyngis—Dr. N. K. Wilson.
Radical Mastoid Without Packing—Dr. Jane P. Sproule.
Sarcoma of the Eye-lid—Dr. Angus Campbell.
Uni-lateral Nasal Obstruction, Case report and specimen, in Suppurative Meningitis after Acute Sinus Disease—Dr. Geoffrey Boyd.
Diffuse Suppurative Labyrinthitis—Dr. R. S. Pentecost.
Optic Atrophy After Fracture; Interstitial Keratitis in Adult; Optic Atrophy in Intra-cranial Disease—Dr. F. C. Trebilcock.

The following cases were also shown:

Chronic Specific Laryngitis; Tubercular Laryngitis; Laryngeal Fibroma; Tubercular Rhinitis; Functional Aphonia; Oto-sclerosis; Naso-pharyngeal Tumor.

Considerable interest was attached to the business meeting, which took place in the afternoon of the opening day, when Dr. Adam Wright introduced his motion, notice of which was duly given at the meeting in London a year ago, regarding the separation of the Ontario Medical Association from the Canadian Medical Association. It was considered wise to refer this matter to a committee, who will go into the whole subject with care and deliberation and report their finding at the meeting a year hence. In this connection, we regret extremely that some unnecessary publicity was given to this subject in the daily press, in the form of an anonymous communication which appeared in the *Toronto World* on the morning of May 25th. Anonymous communications are, as a rule, unworthy of notice, and we are glad that Dr. H. J. Hamilton, retiring President of the Academy of Medicine, and Dr. H. B. Anderson, President-elect of the Academy of Medicine, replied to the communication in question, laying before both the lay public and the profession the true state of affairs regarding this unfortunate discussion. It seems too bad that a certain element in the profession should seem determined to make trouble. We do not doubt, however, that the whole matter will be satisfactorily arranged a year hence.

A very successful luncheon was given in the Medical Building at one o'clock on the opening day, and the Committee were pleased at the success of this little function, which meant that the members of the Association attending the meeting did not have to absent themselves from the building during what was a very warm day. A most successful banquet was given at the Yacht Club on the evening of Wednesday, May 27th, when nearly 100 members sat down to the table. Dr. McGillivray occupied the chair. The Hon. Mr. Hanna was unable to be present, but his place was taken by Dr. J. T. Gilmour, Warden of the Central Prison, who gave a most interesting sociological address. A large number of the members took advantage of the courtesy extended by the Ontario Jockey Club and attended the races at the Woodbine on Thursday afternoon.

The clinics at the different hospitals on the forenoons of Wednesday and Thursday were a great success, and we feel that our confreres from outside the city had nothing to complain of in this connection.

The Exhibit Committee are to be congratulated upon the splendid representation of firms who exhibited in the main corridor of the Medical Building. These firms included Messrs. Morang & Co., MacMillan Co. of Canada, Gilmour Bros. & Co., Canadian Organotherapy Co., Waterbury Chemical Co., Denver Chemical Co., Virol Agency, Kress & Owen Co., Radium Chemical Co., W. Lloyd Wood, Ltd., Allen & Hanbury's, of London, Eng., and The Squibb Chemical Co.

The President-elect for the ensuing year is Dr. D. J. Gibb Wishart, of Toronto. We congratulate the Association upon their choice and feel that Dr. Wishart will make a most dignified and efficient chairman. Dr. Clarkson was re-elected General Secretary, with Dr. J. H. Elliott as Treasurer.

THE CANADIAN MEDICAL ASSOCIATION

The forty-seventh annual meeting of the Canadian Medical Association takes place in St. John, N.B., on July 7th, 8th, 9th and 10th. Dr. Murray MacLaren will occupy the chair as President, Dr. W. W. Francis, of Montreal, being Secretary-Treasurer.

The Local Committee have made extensive preparations for the entertainment of the members and their families, and it is expected that the Lieutenant-Governor, Hon. Josiah Wood, will be present to address the meeting.

The meetings will be held in the magnificent new Armory, only recently completed by the Dominion Government. All of the general and section meetings will be held in the one building, which will be found a great convenience to the visiting members.

The usual arrangement has been made with the different railways regarding reduced fares.

As to hotel accommodation, we would suggest that physicians intending to be present should at once communicate with the

Secretary of the Reception Committee, Dr. F. T. Dunlop, 149 Waterloo St., St. John, N.B.

The following is a preliminary programme:

Presidential Address.—Murray MacLaren, M.D., St. John.

Address in Medicine.—Thomas MacRae, M.D., Professor of Medicine, Jefferson Medical College, Philadelphia, U.S.A.

Address in Surgery.—J. Rutherford Morison, F.R.C.S., Professor of Surgery, University of Durham, Newcastle-on-Tyne, England.

Address in Obstetrics.—H. Jellett, F.R.C.P.I., Master, Rotunda Hospital, Dublin, Ireland.

Public Lecture.—C. A. Hodgetts, Medical Adviser, Commission of Conservation, Ottawa, "Health Problems in Canada."

COMBINED MEETING OF MEDICAL, SURGICAL AND X-RAY SECTIONS.

DISCUSSION ON "INTESTINAL STASIS."

Anatomical—A. C. Geddes, Montreal.

Medical—C. F. Martin, Montreal; Max Einhorn, Boston, U.S.A.; A. McPhedran, Toronto, and others.

Surgical—A. Primrose, Toronto; J. M. Elder, Montreal; F. N. G. Starr, Toronto; R. E. McKechnie, Vancouver, and others.

X-Ray—J. T. Case, Battle Creek, Mich., U.S.A.; L. G. Cole, New York, U.S.A., and others.

SECTION OF MEDICINE.

W. H. B. Aikens, Toronto—Radium.

H. B. Anderson, Toronto—To be announced.

Percy Brown, Boston, U.S.A.—Intestinal Stasis and Chronic Rheumatism; a Roentgenologic consideration of the relation between them.

Max Einhorn, New York, U.S.A.—Peptic Ulcer.

F. G. Finley, Montreal—To be announced.

W. F. Hamilton, Montreal—Paroxysmal Tachycardia.

W. B. Kendall, Gravenhurst—Tuberculosis.

A. McPhedran, Toronto—Report of a Case of Aortic Aneurysm with Recurrent Fever.

H. C. Parsons, Toronto—Tuberculosis in Children.

A. Howard Pirie, Montreal—Lung Abscess.

C. K. Russel, Montreal—Syphilis and Parasyphilis of the Nervous System and the Results of Treatment with Salvarsan.

D. A. Shirres, Montreal—Psychic Shock, and its Varying Effects.
H. A. McCallum, London—The Relation of Angina Pectoris to Infection.
J. A. MacGregor, London—To be announced.
J. T. Fotheringham, Toronto—The Use of Carbolic Acid in Tetanus, with description of a Case.
J. Kaufmann, Montreal—Clinical Significance of a Knowledge of the Diastolic Blood Pressure, and the Potential Difference.
T. F. Cotton, Montreal—Cardiac Hypertrophy.
D. Townsend, River Glade, N.B.—The Early Diagnosis of Tuberculosis.

SECTION OF SURGERY.

G. E. Armstrong, Montreal—Linitis Plastica.
G. W. Crile, Cleveland, U.S.A.—The Liver in its Relation to Operations on the Biliary Tract and the Stomach.
Harvey Cushing, Boston, U.S.A.—Pituitary Disorders.
J. M. Elder, Montreal—Some Points in the Treatment of Fractures.
A. MacKenzie Forbes, Montreal—Sciatic Pains, their Cause and Treatment.
A. E. Garrow, Montreal—Diagnosis and Treatment of Exophthalmic Goitre, with a short Report of Cases.
J. H. Halpenny, Winnipeg—Tuberculosis of the Spleen.
F. W. Nagle, Montreal—The Selection of Anesthetics, Sequences and Methods.
I. Olmstead, Hamilton—To be announced.
A. Primrose, Toronto—Hour-glass Contraction of the Stomach.
C. L. Starr, Toronto—Congenital Dislocation of the Hip.
F. N. G. Starr, Toronto—Splenectomy: Indications for Operation: the Operation and its After-effects.
John Stewart, Halifax—Chloroform Anesthesia.
W. G. Turner, Montreal—The Use of the Bone Graft in Surgery.
W. G. Anglin, Kingston—Subtrochanteric Fractures of the Femur.
N. S. Fraser, St. John's, Nfld.—Rectal Temperature in Diagnosis of Abdominal Conditions.
M. Chisholm, Halifax—Injuries of the Foot.
Wm. Hutchinson, Montreal—Renal and Ureteral Calculi: with a New Method of Removing Ureteral Calculi.

SURGICAL CLINIC AT GENERAL PUBLIC HOSPITAL.

G. E. Armstrong, Montreal.

SECTION OF OBSTETRICS AND GYNECOLOGY.

G. S. Cameron, Peterborough—Puerperal Infections.

J. R. Goodall, Montreal—The Treatment of Puerperal Infections.

F. A. L. Lockhart, Montreal—Pelvic Inflammation.

B. P. Watson, Toronto—Pyelitis in Pregnancy.

F. W. Marlow, Toronto—A Case of Chorion Epithelioma, and one of Hydatid Mole.

J. R. Torbert, Boston—Some Observations drawn from ten years' association with the Boston Lying-in Hospital.

SECTION OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY.

Eugene Crockett, Boston, U.S.A.—Ear Deafness and Treatment by 606.

G. K. Mathewson, Montreal—A Primary Syphilitic Lesion on the Conjunctiva.

S. H. McKee, Montreal—Interstitial Keratitis.

J. W. Stirling, Montreal—Some Observations on Glaucoma and Its Treatment.

J. A. MacMillan, Montreal—Treatment of Squint.

H. S. Muckleston, Montreal—A Case of Pharyngitis in Association with Erysipelas.

D. H. Ballon, Montreal—Recent Investigations in the Semicircular Canals, and their Clinical Application.

R. F. Mathers, Halifax—To be announced.

G. S. Ryerson, Toronto—Radium.

SECTION OF PUBLIC HEALTH.

Reports of Committees:

(1) Medical School Inspection—Chairman, J. H. Halpenny, Winnipeg.

(2) Applied Sociology—Chairman, P. H. Bryce, Ottawa.

(3) Mental Hygiene—Chairman, Helen MacMurchy, Toronto.

(4) Venereal Diseases—Chairman, J. G. Adami, Montreal.

H. W. Hill, London—Chairman's Address.

G. C. Jones, Ottawa—The Importance of the recent Balkan War to the Canadian Medical Practitioner.

Lorne Drum, Ottawa—Militia Sanitation and Its Influence on the Public Health of the Country.

C. J. Hastings, Toronto—Industrial Diseases and Industrial Hygiene.

P. H. Bryce, Ottawa—The Methods of Conservation of Food Products in Relation to Public Health..

A. P. Reid, Nova Scotia—The Housing Problem—A Business Proposition.

J. D. Page, Quebec—The Immigrant, the Profession and the Nation.

J. W. S. McCullough, Toronto—Public Health in Ontario.

T. A. Starkey, Montreal—To be announced.

J. A. Grant, Halifax—The Medical Profession and the Militia Service.

C. T. Graham-Rogers, New York—To be announced.

A. F. Miller, Kentville, N.S.—To be announced.

M. M. Seymour, Regina—To be announced.

LABORATORY SECTION.

D. Fraser Harris, Halifax—The Rhythm of Voluntary Muscular Contraction and its Relation to the Tremor of Tonus.

F. K. Maclellan, Halifax—The Biological and Other Blood Tests in the Law Courts.

J. Kaufmann, Montreal—(1) Wohlard's Method of Demonstrating the Relative Sizes of the Cavities of the Heart in Dry Specimens. (2) Injection of the Subendocardial Bursal Spaces to Demonstrate the Auriculo-Ventricular Bundle.

J. Kaufmann and E. L. Judah, Montreal—A Rapid Color Method for the Differentiation of Fat in Gross Specimens.

J. J. Ower, Montreal—(1) Complement Fixation in Gonorrhea. (2) Early Aneurysm of the Aorta.

L. J. Rhea and E. H. Falconer, Montreal—A Bacteriological Study of the Lymph Nodes Removed from a Case of Hodgkin's Disease.

L. J. Rhea, Montreal—(1) The Comparative Pathology of Anterior Poliomyelitis and "Blind Staggers" in the Horse. (2) The Comparative Pathology of the Tracheal Lesions in Whooping Cough and Canine Distemper.

H. McKee, Montreal—(Demonstration with Specimens): (1) Amaurotic Family Idiocy. (2) Retinitis Pigmentosa. (3) A Comparative Study of the Bacillus Bronchi Septicus and the Bordet-Gengou Bacillus of Whooping Cough.

A. B. McCallum, Toronto—To be announced.

X-RAY SECTION.

Percy Brown, Boston, U.S.A.—An Improved Method of Roentgen Ray Technique as applied to the Head, with a Special Reference to the Nasal Accessory Sinuses and the Perisellar Neighborhood.

J. T. Case, Battle Creek Sanitarium, U.S.A.—Gastric Carcinoma.

L. G. Cole, New York, U.S.A.—Diagnosis of Gastric and Duodenal Ulcers, and Gall-Bladder Infection, with or without Calculi.

G. G. Corbet, St. John—Articulations.

J. L. Duval, St. John—Fractures.

W. H. Eagar, Halifax—Bone Lesions. (With Lantern.)

S. W. Ellsworth, Boston, U.S.A.—Resume of the Evening Clinic for Diagnosis of the Diseases of the Chest.

A. W. George, Boston, U.S.A.—To be announced.

G. McNeill, London—To be announced.

A. Howard Pirie, Montreal—The Rugae of the Mucous Membrane of the Stomach in Various Diseases of that Organ as Shown by X-rays.

W. L. Watt, Winnipeg—The Chest.

R. Wilson, Montreal—Radiography of the Accessory Sinuses.

The Physician's Library

Treatment by Hypnotism and Suggestion; or Psycho-Therapeutics. By C. Lloyd Tuckey, M.D. (Aberd.), Membre Fondateur de la Societe D'Hypnologie; Honorary Member of the American Society for the Study and Cure of Inebriety; First President of the Psycho-Medical Society. Sixth Edition; revised and enlarged. With a Foreword by Sir Francis R. Cruise, M.D., D.L., K.S.G.; Honorary Physician to the King in Ireland; and a chapter on Professor Freud's theories and treatment by Psycho-Analysis, by Dr. Constance Long, President of the Association of Registered Medical Women, 1911-1913. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1913.

That Psycho-Therapeutics is fast getting into its scientific place in the field of therapeutics every up-to-date practitioner is fully convinced. Any means which will relieve any condition is good treatment. The public do not care what qualifications their medical attendant possesses so long as he provides relief for their ailments. The author has had over a quarter of a century's experience, and in revising this, the Sixth Edition, he has added much from his own personal experience. Every general practitioner should make himself acquainted with the science of hypnotism. A. J. H.

Medical Gynecology. By Samuel W. Bandler, M.D.; Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital; 3rd edition; thoroughly revised; octavo of 790 pages, with 150 original illustrations. Philadelphia and London: W. B. Saunders Company. 1914. Cloth, $5.00 net. Canadian Agents: The J. F. Hartz Company, Limited, Toronto.

This book deals with the non-operative side of gynecology. The chief importance is laid upon the intelligent uses of the medicinal products of the various glands, e.g., thyroids, ovarian

and pituitary gland vessels, and this is certainly advancing in the right direction. Special attention is paid to the diagnosis and treatment of the commoner diseases, as well as the unusual, such as tubal pregnancy. And, by the way, the article on ectopic gestation is especially good. The book is well printed and artistically bound. This book should be of especial value to the general practitioner, since the treatment, as stated, is chiefly medical, and therefore within his reach. The article dealing with constipation should be very helpful, as many splendid suggestions for treatment are outlined. It is a book valuable alike both to the general practitioner and the specialist in gynecology. A. C. H.

Goepp's State Board Questions and Answers. Third Edition; thoroughly revised. By R. Max Goepp, M.D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Octavo volume of 717 pages. Philadelphia and London: W. B. Saunders. 1913. Cloth, $4.00 net; half-morocco, $5.50 net. Sole Canadian Agents, The J. F. Hartz Co., Limited, Toronto.

This very voluminous collection of questions, with brief answers, should be of much service to candidates for the various State Boards across the line. It constitutes a gigantic quiz-compend, with the merits and the demerits of that style of textbook. J. T. F.

Massage: Its Principles and Technic. By Max Bohm, M.D., of Berlin, Germany. Edited, with an introduction, by Charles F. Painter, M.D., Professor of Orthopedic Surgery at Tufts Medical School, Boston. Octavo of 91 pages, with 97 illustrations. Philadelphia and London: W. B. Saunders Company. 1913. Cloth, $1.75 net. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

The value of this book to the medical man, student or educated masseur depends not so much on the principles of massage outlined in the text as it does on the admirable illustrations, made from photographs, which present at a glance the technic.

A simple, not too technical, diagram of the parts surrounding a joint is first given, then a number of very perfect photographs of the exact movements used in the massage of this part, with concise and easily followed directions.

The same principle is followed in dealing with massage of the muscles, and of the abdomen, to which is added some useful diagrams of the "points of emergence of nerves" in the head and limbs.

The book is handsomely gotten up, well printed on heavy paper, with large, clear illustrations, the whole being thoroughly indexed. A. J. J.

Diet in Health and Disease. By JULIUS FRIEDENWALD, M.D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore; and JOHN RUHRAH, M.D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Fourth edition, thoroughly revised and enlarged. Octavo of 857 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $4.00, half morocco, $5.50 net. Sole Canadian agents, The J. F. Hartz Co., Toronto.

Recent research has added so many new facts to our knowledge of foods, and metabolism, that it became imperative for the authors to make extensive alterations and additions in the present edition. But the book remains entirely practical. The new matter has been presented in a concise, clear, and commonsense manner. The sections on Metabolism and Salt Metabolism have been largely rewritten. The diet for fevers in general, and typhoid in particular, has been fully considered in new articles. The authors do not view with favor the high coloric diets for general use in typhoid, as advised by some of the American schools. They advocate determining the food amounts by the clinical conditions of each case. The chapter on Diabetes is new and interesting, embracing as it does all the modern ideas and diet cures. We can heartily recommend this book to the general practitioner and medical student for his constant reference on a much neglected, but decidedly important, subject.

W. H. P.

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Editorials

NEURALGIA FROM VARICOSIS

The frequent occurrence of varicosis in dependent regions of the body—lower extremities, rectum, spermatic cord—is a matter of ordinary clinical observation. One of the determining causes of this pathological condition is the distribution of the veins in these parts. Occupations, which require hard labor combined with the erect posture, such as the work of washerwomen, cooks, laborers, tend to determine its localization; a sclerotic condition of the veins lays the foundation of varicosis, and, in the majority of instances, is the fundamental trouble.

When examining a patient for neuralgic pains in a lower extremity, the limb should be uncovered and he should stand erect; if he is in a recumbent posture, varices may escape the physician's notice. Why is a certain nerve, the anterior crural, for instance, affected with an obstinate neuralgia? It may be caused by a deep varix of the femoral vein, either in or near a nerve trunk. Both the internal saphena

vein and the external saphena vein are accompanied by nerves, the internal saphena vein being joined by its companion nerve, just below the level of the knee joint. No doubt, much of the pain of varicosis in the leg is due to this fact. Neuralgia is a frequent accompaniment of the advanced varicose state, though severe neuralgia along the sciatic tract may occur, without very marked varicosity of the superficial veins. A neuralgia of varicose origin is largely due to the development of intramural varices and perineural sclerosis of the damaged nerve. In sciatica, the pain is felt, with the greatest intensity, in the gluteo-femoral region, where the nerve becomes superficial, after its exit from the pelvis. In the vicinity of varicose veins changes are observed in the adjoining arteries (sclerosis); in the nerves, interstitial or perineural fibrosis (Quénu); the varicose process also attacking the veins in the large nerves, especially the sciatic; in the skin, which undergoes marked trophic changes, and becomes eczematous.

In the Berliner Klinische Wochenschrift, No. 11, 1914, Progessor Edinger, of the Neurological Institute, Frankfort, deals with many different morbid changes, which may produce neuralgic pains in the lower extremities. Such pains are very commonly put down to pure neuralgia, particularly if the medical examination of the patient should be incomplete. To illustrate: He mentions the case of a man of 22, treated unavailingly for sciatica by different physicians for three years. This man had received a kick in the right shin, just below the knee, when playing

football; unfortunately, an iron fire screen fell on exactly the same spot not long after, with a result that, following a severe local hemorrhagic effusion, acute pains developed in the limb, on which eight weeks' rest in bed and numerous forms of treatment had little or no effect. For no less than three years the pains continued, in spite of every attempt to relieve them. The patient was able to cycle for some distance; but the pains came on, if he had to climb an ascent. He was able to ride on horseback, though pressing his knee against the horse's side induced the pain. He could walk up stairs quite well; but always felt the pains worse, if he stood for any time. The contradictory nature of the complaint, as it appeared to some doctors, had led to a diagnosis of hysteria. There were no signs of organic nervous disease. Professor Edinger noticed, while examining the patient, that some superficial veins over the calf were dilated, and the idea of a varicose condition of the veins of some nerve trunk, or in the neighborhood of a nerve trunk, came to him. The simple application of an elastic bandage effected a speedy and permanent recovery.

Another case was that of a medical man, aged 56, who, after a chill, developed so-called sciatica in the left leg. A peculiarity observed was, that the pains were worse when the patient was standing or sitting, while walking quickly relieved them. They were localized on the back of the knee, but were felt also in the buttock; their frequent appearance at the head of the fibula had led to a diagnosis of peroneal neuralgia. The whole leg below the knee ached, while pressure on

the sciatic nerve at the sciatic notch was painful. The pains were alleviated by walking up stairs, and made worse by standing or walking slowly. Every kind of treatment of sciatica was, at one time or other, utilized, but in vain.

The patient was, however, one day examined in the erect posture, when small varicose veins were noticed on the back of the knee, and a diagnosis of deep varicosis was made. Treatment along suitable lines soon led to a satisfactory cure.

Professor Edinger's paper is interesting for many reasons; chiefly because he shows, that the application of an elastic bandage effected a speedy and permanent recovery in a case of severe and previously intractable sciatica. Professor Quénu's operation for this type of sciatica consists essentially in the exposure of the nerve and the direct dissection and extirpation of the recognizable intraneural and perineural varices, followed by the combing or raking of the nerve (hersage) with a coarse brush, to destroy the smaller varicose veins. This operation is said to have produced excellent results, in suitable cases.

J. J. C.

THE VOICE AND MANNER OF THE MEDICAL PRACTITIONER

Dr. Crothers, the well-known specialist, of Hartford, Conn., writes entertainingly on voice and manners in doctors (*New York Medical Record,* May 16th, 1914). He aptly quotes the president of a great

University, who, when asked why it was that some of his teachers showed such irregularities of thought and action, replied: "Cultured men are abundant; but gentlemen with cultured manners, trained voices and common sense are very rare." Common sense and gentlemanly behavior are not rare in doctors; a cultivated voice and a pleasing manner are rather uncommon.

The modern doctor in Canada is trained on scientific lines. After obtaining a high school or university course of instruction, he devotes five years to studies in medicine; he takes an expensive postgraduate course abroad, or works in a hospital at home, for a year or so. And then? Perhaps he does succeed in building up a practice. Perhaps he may prove a failure, though the fault may not be due to lack of professional skill. He may repel his patients; he may antagonize people, who consult him. His manners may be bad; his voice wretched and discordant. More fortunate in his professional acquirements, "a doctor of the successful class was an actor and had a musical, trained voice; his manners were perfect. He had good sense, and was quick to profit by the experience of others. His power of expression was good and it brought conviction and confidence." Such illustrations may be noticed in every community of any size, and may account for the difference between professional success or failure. As Dr. Crothers says: There is no organ in the human body, so full of possibilities, through training and culture, as the human voice; yet it is practically neglected and often

made discordant by a great many weaknesses, of which smoking is one. It is rare to hear anyone speaking in public, who has any conception of the power of the voice and expression. The annual meetings of the American Medical Association furnish a good many examples of such defects; illustrations of them occur, both in the public exercises and sectional metings.

In everyday life, the cultured quack, with his polished manners and trained voice, makes the favorable impression; the scientifically trained doctor, lacking these exterior accomplishments, passes unnoticed. A physician speaking at a banquet, said: "I cannot smoke; it would destroy my power of speech. I cannot use alcohol; because it would so injure tone quality and manner of expression, that the harp I depend on to bring out the melodies of thought, counsel and advice, would be marred and broken."

Physicians should exercise extraordinary care to keep the voice clear and resonant; and to prevent congestion, which centres in the nasal passages and vocal cords. Physicians should, by training, be able to exhibit voice culture and cultivated manners in the fullest sense. These are essential things in the sick room, where one is dealing with invalids or weaklings, who are ever on the watch for something to cling to, who require strength from some outside source. Dr. Crothers also lauds the power of the human voice as an agency which can alter the course of disease, and change the atmosphere of the patient's mind, in a most helpful way, in hospitals and asylums.

Certainly, in directing the education of a doctor of medicine, it would be well to seek to develop in him a gentle voice—not an artificial one. Teachers of medicine should not sacrifice the improvement of the voice to a technical training of eye, ear, touch, intellect. It is an old saying, that "Music is the soft charm of heaven"; a musical human voice is a fine instrument wherewith to conjure away the fears, the thick-coming fancies, the despair that beset a struggling patient. When your drugs fail to heal, a voice, properly tuned, may be the most potent of musical instruments or vibratory sounds.

J. J. C.

THE THERAPEUTICS OF CATULLUS

In his twenty-third poem, Catullus starts out to flay Furius, who was too miserly to board a flea or a spider; but who lived with a father and a step-mother whose teeth could chew up even flint. While heaping opprobrium on this parsimonious family, Catullus, in his own inimitable way, pictures the perfect health they enjoy—a health built on a very spare diet. "A pretty life you lead with your father and your father's wooden spouse; and no wonder; for you are all in good health, you digest well, you fear nothing, neither fire, nor heavy losses, nor impious deeds, nor treacherous poison, nor any perilous chances." The bliss of this economical family did not spring from sentimental or moral sources; but was purely phys-

ical and depended on a spare diet. Their bodies were more dried than horn, or if anything else there is more arid, by heat and by cold and by hunger. They were comfortable and happy, being free from sweat, from spittle, from mucus, and unpleasant snivel at the nose. Think of it, ye gourmands, whose fancies rove from roast to boiled, who revel in ice water, ice cream, champagne frappé in summer, in whiskey and hot water in winter. Cut out the liquids and the solids too, if you would be comfortably dry in skin, pharynx, and nasal mucous membrane.

But Catullus goes deeper with his preventive medicine. Familiarized, by dear experience, with the gorging of Roman epicures, he says: "To this cleanliness add the still cleaner fact, that your posteriors are neater than a salt cellar; nor do you void anything from them ten times in a year, *and when you do* it is harder than a bean or than pebbles, so that if you rub and crumble it in your hand, you can never dirty a finger." No hemorrhoids, no congestion of the portal circulation, no catarrhal jaundice, no ascites can attack Furius or his economical relatives; the starvation method of effecting intestinal antisepsis is far more potent than Leptandrin, Betanaphthol, or Naphthalein.

If the opinions expressed in this poem rested on the medical teachings of his day, Catullus was well advised; if founded on personal observation of the physical conditions or diseases which plagued the luxurious feeders or heavy drinkers of Rome, he was a sharp clinician. In any event, being a wit and a poet,

he eulogizes spare diet as the friend of the "Particle of Divine breath," leaving it free to forge the bright gems of poetry and song. With no sneer, does Catullus urge Furius to be satisfied with what he has; not to despise the precious advantages of poverty, nor think little of them, and to cease to pray, as he is wont, for a hundred thousand sesterces ($4,000.00).

J. J. C.

THE 1914 MEETING OF THE AMERICAN MEDICAL ASSOCIATION

Again the pendulum of the years has swung around and chimed out "Every second year the meeting place is Atlantic City." So to this delightful place nearly 4,000 doctors and their families flocked, met again, greeted, renewed old acquaintances and exchanged new ideas, spoke of wondrous advance in surgical skill and medical science, and last but not least, to a man, the association enjoyed itself.

The opening meeting was held in the large theatre. On the stage surrounding the President, were many fine old faces, ex-presidents, and of the vanguard of marvellous men when the world of medicine was half a century younger, still to the front as leaders of advancing thought, yet gentlemen of the old school who had infinite time, somehow, always to be courteous and sympathetic. The President's address was scholarly and masterful to a degree, in fact a history of medicine and all the plagues down the centuries. As one listened they wondered that any of us had any

ancestors at all, for every century's own special plague did thoroughly its deadly work.

The address will be a valuable one to refer to for those in search of statistics and so, as soon as published, ought to be carefully perused and put away for future reference. It was exhaustive in composition and smelt of the midnight oil.

As usual the different sections met in hotels and even in churches, and were well attended everywhere, despite the charm of the great "outdoors," the restfulness of listening to the waves, the joy of using the old ocean for a swimming pool, the indolence of a chair ride with the darkey pusher purring for a tip, the piers, the band and in a word the great *altogether* of the greatest of seaside resorts.

The resident physicians were everywhere with a cordial welcome and showed also the kindest of hospitality in their beautiful homes. Over all, the continuous sunshine, day after day, makes this year's A. M. A. meeting a joyous memory that will linger "till travelling days are done." W. A. Y.

THE AMERICAN MEDICAL EDITORS' ASSOCIATION

At the Marlborough-Blenheim at Atlantic City the medical editors convened just previous to the larger medical association. The papers read were good, well thought out and practical, the discussion that followed each was participated in with alacrity, fervor or acidity, as behoves the knights of the quill, who

usually hold decided opinions and often like to etch them in with a point dipped in a mild solution of gall.

The association is flourishing, and on the last evening held its annual banquet. It was very enjoyable and a great success. Dr. Charles MacDonald, Jr. (*The American Journal of Surgery,* New York), ex-president of the association and many times Honorary Secretary is a genius at detail in management. The toast master, Dr. Brickner, again proved an unending source of amusement to the guests. But the "blessin' " on the feast was contributed by the presence and speech of Dr. Jacobi and the sunshine of Dr. Marcy's laugh and story. Dr. G. F. Butler gave one of his original inimitable toasts "To the Ladies," and the new President-elect, Dr. Edwin Lewis, wit and poet, gave the just last little touch that made perfect the song and story evening that lasted until the adieu was "good morning" till next year—leaving the decision of the meeting place "on the knees of the gods." W. A. Y.

THE MEDICAL COMMISSION---IS IT A DEAD LETTER ?

It will be recollected that, at the formal opening of the new Toronto General Hospital over a year ago, the Premier of the Province made a public statement to the effect that his Government would immediately appoint a Medical Commission, whose function it would be to enquire exhaustively into all matters medical, including the practice of medicine in the

Province and the relationship of the Ontario College of Physicians and Surgeons thereto, nursing, osteopathy, and all other "pathies" including so-called "optometrists," and other charlatans, in fact everything that had to do with the treatment of the sick. This announcement was hailed with pleasure by the profession, and ever since that date we have looked for some definite action. Nothing has, however, been done, owing no doubt to the Premier's prolonged illness. It is very unfortunate that so important a matter has had to be sidetracked, especially in view of the position in which it placed the Medical Council of Ontario. This body, who met in annual session last month, have been prepared to act upon the urgent suggestion of the Government, made prior to that date, and reorganize; but in view of the Premier's definite announcement decided, and many think wisely, to table the matter of reorganization until the proposed Medical Commission was definitely underway. Now, what has happened? The aforesaid Commission has not been appointed. The Legislature has dissolved and nothing, we are credibly informed, will be done in this connection for about a year. Further than that, the Medical Council became *non est* last month, the elections will take place in November next, and the usual number of members will receive their new appointment for another term of four years. Does this mean that reorganization cannot become an accomplished fact for another four and a half years, or will the new Ontario Government get busy and, in the course of 1915 perhaps, dissolve the Medical Coun-

cil and in that manner permit of the much needed changes, with its reduced membership, taking place?

Some members of the profession, doubtless satellites of Mr. Rowell, have gone as far as to state that Sir James Whitney never had any serious intentions regarding the proposed commission, but merely stated the fact when on his feet, expecting thereby to please the University of Toronto and its followers.

We are glad to hear the Premier of Ontario, as a result of his illness, feels much more favorably disposed towards the profession than he did a year ago and more inclined to materially change his opinion as to the waywardness of certain "paths" which, it is said, he had been inclined to follow.

We wish to take the opportunity of congratulating the Council upon their 1914 Financial Statement. Some of the members of this august body will perhaps recollect a little pointed advice, offered them in an exceedingly modest manner by this journal some years ago, calling their attention to the fact that, unless they right about face, and conduct their affairs in a more business-like manner, they might have to soon seek the services of an official assignee. What a change has taken place! A year ago the bank balance was $13,081.99. This year it has still further crept up and stands at $19,051.45. We tender our congratulations to the Chairman of the Finance Committee.

W. A. Y.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Original Contributions

LIVING OUT OF DOORS

By W. B. Kendall, M.D.,
Physician in Charge Institutions of National Sanatorium Association.

Living out of doors is an experience which some people follow of necessity, while many others, and their number is steadily increasing, do so out of choice. The genuine pleasure and healthfulness experienced from outdoor living cannot be appreciated until one indulges in it to the full extent, and endeavors to work, rest and play out of doors.

For the past eight years I have been interested in the former class, for whom necessity makes the choice. I refer to patients suffering from pulmonary tuberculosis, who are making a sojourn in a sanatorium. The measure of greatest importance in the so-called hygienic-dietetic treatment of pulmonary tuberculosis is that of education. The teaching of patients how to live in the open air is but one of the lessons taught in such institutions. A sanatorium is not merely a building or collection of structures in which to accommodate patients, but rather an institution combining all the essential features whereby a patient may be taught how to live hygienically under medical supervision, and schooled in such a way that he may be able to continue such type of living outside of an institution without supervision. Patients suffering from consumption are, unfortunately, too numerous, and sanatoria too few, to enable but a limited number to avail themselves of such training. We find that the average stay of patients in most sanatoria is but three months, a period much too limited to give marked practical results from treatment *per se*. This period, however, should be sufficient to enable patients to become thoroughly familiar with the disease they are suffering from, of the gravity of their plight, of the hopefulness in reference to results of treatment if

persisted in, as well as some idea as to what measures must be followed in order that treatment may be continued along sanatorium lines after a patient has returned to the home.

Time and space will allow me to but briefly consider some points in reference to two types of building, among others, at present in use for outdoor living in Muskoka.

Illustrations Nos. 1 and 2 picture a type of pavilion as adopted four years ago for use in the Muskoka Free Hospital for Consumptives. This building is 113 feet 6 inches long by 14 feet wide, and constructed so as to accommodate twenty beds. In the centre is a heated dressing room, in which are built twenty clothes lockers, on the door of each being a toilet set, including mirror and drawer for toilet articles. In this room will be found basins with hot and cold running water, water being heated in a coil in the heating stove. A porcelain waste basin is also provided for use in brushing the teeth and washing sputum flasks with an antiseptic after the contents of the flask have been placed in a refill and properly wrapped ready for burning. A shower bath, together with lavatory accommodation, complete the equipment of this dressing room. In either wing are accommodated ten patients. The front of the building is made entirely of glass above a 2 feet 6 inches base. The glass is set in sash which are hung from the top, swinging in. Each window is kept open by means of rope and pulley, the former being fastened to a cleat near the head of the patient's bed. The windows are closed only on the order of a physician. This type of building, of which we now have five in number, four for men and one for women, is used for ambulatory cases only. The windows in these pavilions were closed but four times last year, on stormy days only, although we experienced weather last winter when the thermometer registered 45 degrees below zero. Cost per bed complete, including furnishings, $108.71.

Photographs Nos. 3, 4 and 5 give views of another class of pavilion in which each patient has separate accommodation, one of these buildings being at present in use at the Muskoka Cottage Sanatorium. This structure is 182 feet 6 inches long by 26 feet 6 inches wide, including a spacious verandah. The centre portion is of two storeys, the upstairs consisting of two bedrooms, a sitting room and lavatory. Below this on the ground

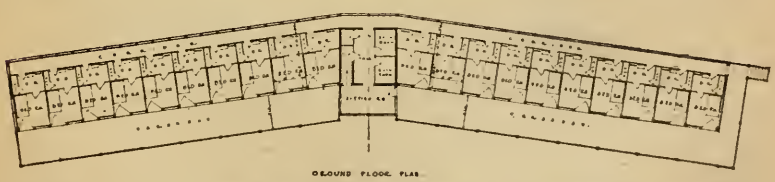
floor is included a solarium, bathrooms, lavatories, etc. In the sectional cut is shown a corridor running the entire length of the building, the outside exposure being of glass. From this



Open Pavilion.



Kendall Pavilion.



corridor entrance is made to the twenty dressing rooms, while in front of the latter are the open-air sleeping quarters. The dressing rooms are 4 feet 9 inches x 8 feet, furnished with a built-in wardrobe, a cheffonier and chair, while in each is in-



Interior Open Pavilion.



Bird's Eye View, Kendall Pavilion.

stalled a vitrified basin with hot and cold water. The sleeping room is 8 feet x 9 feet, with glass front made of two sash above a 3 feet 2 inches base. The windows are hinged at the top and swing in on pulleys. Below one of these windows is a swinging half door, the opening of which allows the bed to be run out on to the verandah. Screens cover all openings. The building is heated by low pressure steam, with the exception of the sleeping rooms. All rooms are lighted with electricity, including reading lamps at the head of each bed. The building faces the south and is built in the shape of a wide V, in order that protection may be had from the north, northeast and northwest winds. Cost per bed complete, including latest hospital equipment, $397.35.

In considering the planning of buildings to be used for out-door living we are anxious to include certain features and to avoid others. Efficiency, with comfort, must be the main object. The first point of importance is that a building be so planned that a patient may be able to spend as much of the twenty-four hours each day in the open air as possible, and be able to rest—and that in comfort. The rooms must be well lighted, ventilated, open to all the sun available, and easily kept clean. Bathing and lavatory accommodation must be ample and convenient. With separate rooms privacy and quietude are, of course, more possible, while this class of accommodation could be used for patients confined to bed.

From an economical point of view we must first consider the cost of original construction, and then give thought to heating, lighting, ventilation and cost of upkeep. This type of building is somewhat elastic, could be modified, made smaller along similar lines or added to. The single-roomed pavilion could be used for advanced cases, while with slight changes one wing could be made available for women, the other for men. The second storey would make comfortable quarters for nurses, if necessary. I have often felt that a structure of this type could be built on the grounds of our county hospitals and be used for the care of advanced cases. The administration staff and buildings are at hand with nurses available. By such measures probable incurable tuberculous cases, I feel, could be made comfortable, and much-needed training for nurses as to pulmonary tuberculosis and its treatment made possible. June 1st, 1914.

Society Proceedings

THE ONTARIO MEDICAL COUNCIL

At the annual meeting of the Ontario Medical Council of the College of Physicians and Surgeons on July 7th the following officers were elected:—President, Dr. James McArthur, London; Vice-Pres., Dr. H. S. Griffin, Hamilton; Registrar, Dr. J. L. Bray, Toronto; Solicitor and Counsel, H. S. Osler, K.C., Toronto; Public Prosecutor, John Fyfe, Toronto; Official Stenographer, Geo. Angus, Toronto; Treasurer, Dr. Wilberforce Aikens, Toronto.

The following committees were appointed:—Registration Committee—Drs. Cruickshank, Vardon, McColl, Jarvis, Ferguson. Rules and Regulations—Vardon, Klotz, Emmerson, Hart, Addison, Becker, Sir James Grant. Finance—J. McCallum, King, Merritt, Bascombe, Stewart. Printing—Emmerson, Welford, Crane, Young, Routledge. Education—Ryan, Gibson, Stewart, Addison, Ferguson, Spankie, Hart, J. M. McCallum, Wickens. Property—Johnson, Routledge, S. McCallum, Crain, Bascom. Complaints—Stewart, Hart, Welford, Becker, Johnson.

The only delegate to the Council who was not present proved to be Dr. Klotz, who is in Germany.

The Council received several applications from physicians, asking for reinstatement.

A note of condolence was passed to Hon. Dr. R. A. Pyne, sympathizing with him in the death of his brother, Dr. A. R. Pyne, who was a member of the Association. A similar motion was passed in connection with the bereavement of Dr. E. E. King, whose daughter died on July 7th.

Should the Ontario Medical Council of the College of Physicians and Surgeons have their way certain gentlemen in the province who draw business to themselves by the adoption of the title "doctor" will have to take to the pick and shovel or else clear out. This much was made absolutely clear at the session of the Council held on the opening day's session at the college. The new president, Dr. James MacArthur, of London, occupied the chair.

"Why should we allow every Tom, Dick and Harry to assume the title of doctor and work to the disadvantage of the community?" demanded Dr. Varden, and immediately the battle was on. The main battery of the Association, the same being Dr. Gibson, Dr. Ryan, Dr. Merritt, Dr. Varden, and Dr. Arthur Jukes Johnson, took up a firm position, and assisted by smaller arms to the right and left began a furious onslaught on all "quacks," whom they deemed a common enemy.

"Either this Council has no power or else it has no backbone," said Dr. Ryan in the first shot. "We should force to the attention of the Government the harm that is being done the community by these alleged drugless physicians. I don't think they are hurting the medical men so much as they are hurting the community."

Dr. Ryan thought that it was high time the commission appointed by the Government or to be appointed by the Government got down to work and examined the qualifications of all persons using the title of "doctor."

Dr. Merritt supported Dr. Ryan. The time to get at the matter was the present. The trouble was spreading. He did not think that the medical profession was suffering very much, if any, from the "ravages" of the "quacks," but he considered the Council owed a debt to the public and that they should try to protect the public.

Dr. Gibson said that if the Medical Act was defective the legislators themselves were at fault and not the medical association. The Council did not lack backbone but it did lack power. The statement on the prospectus of a school of "manotherapy" to the effect that the Ontario Medical Council approved of the course furnished a good case in point and the Council should either wait on the members of Parliament in a body or appoint a committee to do it.

"When we are called to court or any place else or when we have to sign certificates of births and deaths and marriages and—" began Dr. Varden. "Not marriages yet," contradicted Dr. Gibson, with a smile, and the members laughed.

"Well, it would be better for some of them if we did have to examine them for marriage," rejoined Dr. Varden, and another laugh was caused.

"When we have to sign certificates, and those certificates are accepted, and these other men can't sign certificates, why

shouldn't their qualifications be demanded?" continued Dr. Varden.

Dr. Ryan moved a motion, seconded by Dr. Merritt, that the executive committee and the legislative committee consider the matter and make a report on it. Dr. Hart moved an amendment that the two committees, together with the delegates on the Council from the different colleges, form a committee. Dr. Ryan withdrew his motion and endorsed that of Dr. Hart. The committee will report to the Council before it adjourns.

Several of the members said that the Legislature would have passed an act or taken some stand on the question long before had it not been for the universities asking for a delay on the ground that their positions might be imperilled. The Council to a man were annoyed that a charter should have been granted to the school of "mano-therapy" in Hamilton. Dr. Ferguson pointed out that some time ago the Provincial Secretary's department had notified the Council that the Government recognized it as a body, and that nothing would be done without sending word to the Council. Yet a charter had been granted without the Council being consulted. Dr. Arthur Jukes Johnson, of the Complaints Committee, asked to be allowed to see the charter, and he was furnished with a copy. The doctor will make a report on it to the Council.

Honesty in the practice of medicine as the cornerstone of success in the profession was urged by speakers prior to the adjournment on July 9th. Complaints against three physicians made by Dr. Arthur Jukes Johnson, chairman of the Committee of Complaints, were the subject of discussion. The offenders were Dr. C. W. Walker, of the Ontario Medical Institute; Dr. T. F. Gurofsky, of Spadina Avenue, and Dr. A. D. MacArthur, of Blackstock.

After consideration of the cases by the Council, Dr. Johnson moved that the offenders be dealt with at a future date. He declared he had not thought the power of his committee sufficient to deal with the cases and had passed them on to the executive. The charge against Dr. Walker was the employment of unqualified persons as assistants in his institution. The charges against the other two physicians were not made public.

Both morning and afternoon sessions were devoted to routine reports. Recommendations that physicians formulate a series of lectures to be delivered before schools on the evils of alcohol was made by Sir James Grant, of Ottawa. Sir James declared

that drink and tuberculosis caused ninety per cent. of human deaths in the world. A resolution favoring the recommendation and providing for the printing of circulars to be distributed under the auspices of the Council was seconded by Dr. T. W. H. Young and unanimously carried.

That every person should submit to physical examination by a doctor at least once a year as a safeguard against disease was the suggestion of Sir James, speaking at the morning session. A resolution that such action "would seem a very wise provision towards the preservation of human life" was carried. The object of the resolution, the document continued, "is so that any disease or bodily ill could be detected before it advanced to a dangerous stage."

Regarding the report that Toronto physicians were not in favor of the Workmen's Compensation Act because it does not provide for remuneration to physicians rendering "first aid to the injured," F. W. Hinsdale, speaking at the morning session, said: "There is no doubt in my mind but that the Ontario Act is an ideal one, and that every contingency has been provided for. As to remuneration, doctors in different parts of the country where similar measures are in effect declare their collections much easier with the act.

"The act may appear unfavorable to you at first sight," continued Mr. Hinsdale, "but I assure you that the more you see of the law and its workings, the better you will be satisfied with it."

A vote of thanks was tendered Mr. Hinsdale at the conclusion of his address.

"I am satisfied to trust Sir William Meredith," declared Dr. James MacCallum. "I think that any reasonable account presented to the commission by medical men will be paid."

The finance committee reported a balance of $6,000 on hand. Reports were heard and adopted from the following committees: Educational, legislation and printing.

The Council then adjourned for another year.

THE CANADIAN MEDICAL ASSOCIATION

Owing to the date of going to press, we are unable to include the report of this meeting in this issue, but will do so a month hence.

Hospital Administration

SEVERANCE HOSPITAL AND MEDICAL COLLEGE, SEOUL, KOREA

We recently had the pleasure of receiving from our esteemed friend, Dr. O. R. Avison, the following account of an institution in the Far East, the progress of which has been watched with keen interest by the Canadian medical profession. We refer to the Severance Hospital and Medical College, located in Seoul, Korea. Dr. O. R. Avison will be remembered by many of our readers. He graduated from the College of Pharmacy and lectured during his medical undergraduate days. He also graduated from Toronto School of Medicine in 1888, and was appointed Professor of Materia Medica and Therapeutics in 1890. While an undergraduate, he helped to organize the Medical Students' Y.M.C.A., and later the Medical Students' Mission. This Mission sent out to Korea as representative Dr. R. A. Hardie, in 1891, and, through his work on the Board of Management of this Mission, Dr. Avison became interested in Korea and decided to go himself, although, from a worldly point of view, few men have sacrificed so much in becoming foreign missionaries. He held two professorships; his practice was growing rapidly; he had married after graduating in Pharmacy and had already two children. But so earnest was he in his decision, that, though the Board of his own denomination was unable to send him out, he applied to the Board of the Presbyterian Church of the United States, was accepted and sailed in 1893. In the Severance Union Medical College, he has established one of the most modern, best equipped hospitals in Eastern Asia.

In speaking of his institution, Dr. Avison writes:—

"We have put up a new building, which is devoted entirely to dispensary work and to medical teaching. It has five stories and is one hundred and ten feet long by forty-five to fifty broad. The basement is devoted entirely to drugs and pharmaceutical work where we have not only a dispensing room from

which drugs are dispensed, but we have a large room devoted to manufacturing where we make tablets, pills, ointments and all sorts of pharmaceuticals not only for ourselves, but for the other hospitals scattered throughout the country. Then we have three large rooms devoted to storing drugs, where we keep the drugs for sending out to the manufacturing room and also wholesaling to the other hospitals; then, in the same flat we have a whole room devoted to a study room for the pharmacists and there teaching is given to the pharmaceutical students, of whom we have six or seven. They are taught Chemistry, practically in the laboratory, Manufacturing Pharmacy, Materia Medica, Botany, Physics and Dispensing, besides being trained in business methods, taking their course also in the sales department. We have one graduated pharmacist and he is the principal teacher of the other students. He also teaches Materia Medica to our medical students and we think he is a pretty good man, as he has been with us a great many years.

"The next flat is devoted to dispensary work, to the daily clinic. We have a large waiting room for the public patients, besides private waiting rooms for those who pay for private treatment; then off from this large waiting room there are several suites of rooms for different departments of our work: for instance we have in surgery three rooms, one a general diagnosis room where the doctor sees his patient and makes his diagnosis and then sends the case for treatment to one of the others, one of them being for the treatment of men patients and the other for women patients; in this room also gynecological work is carried on. All this surgical work is under the charge of Dr. Ludlow, who came to us from Cleveland, Ohio, where he had the chair of Professor of Surgical Pathology in the Dental College and Associate Professor of Surgical Pathology in Western Reserve University, and was for many years first associate to the Professor of Surgery in Lakeside Hospital. Under him are two or three others, graduates of our college here, and one graduate of a college in America. Then, one end of the building is devoted entirely to the eye, ear, nose and throat and to refraction. This is in charge of a doctor from Texas, who for several years before coming out here was a practising specialist along these lines. He has one of our own graduates as his assistant and excellent work is done. He has

a private room of his own and another larger room where he has a place for his assistant to work and places for two senior students to work, besides his own private corner, where he sees his own patients. Then another room is devoted to refraction of the eye and the fitting up of spectacles. We are doing nearly all of this fitting work ourselves here and ultimately we expect to grind all our own lenses, all except the regular spherical and concave ones, which we will buy in large quantities.

"Two other rooms are devoted to medical cases, and this work is under the charge of Dr. VanBuskirk, who was educated in Kansas City.

"Another two rooms are given to skin diseases and of this department I am in charge. I hold a daily clinic here and as these skin diseases are very numerous out here this is one of our important departments. Up to this time I have taught this department myself, but beginning with next April this subject will be taught by a doctor from Australia, who will come up from the country and will give two months to the work and hold daily clinics and teach the subject.

" I myself will give the clinics during the other ten months of the year.

" During three months of the school year another Australian doctor gives lectures on neurology and pediatrics and holds special clinics in these subjects during the time he is here.

"Another doctor who will give special work in gynecology and holding clinics is away in America this year on furlough, but he is expected back this coming fall. We expect also that he will take up work in electricity and in hydro-therapy, doing X-ray work and massage and mechano-therapy as well as hydro-therapy, teaching these branches and giving clinics in them.

" In fact, we are trying to provide teaching and treatment in every department of medical and surgical work.

" Another part of our new building is devoted to a suite of rooms for dentistry, but as yet we have no dentist and so this suite is lying idle. I am hoping before long that a dentist will be sent out who will carry on his profession and teach it to other young men and thus fill up another very important part of our work.

" The third story of the building is devoted very largely to offices.

" Here we have the general office, where our bookkeeper is in charge, and also another office for the college work, where one or two secretaries are generally at work. Then there is my own office as president, at one side of which is a private room where I can carry on conferences without disturbance and off from the president's room is a private consultation room nicely fitted up for seeing private patients, and here we can do their minor dressings and such things.

" We have two nice waiting rooms on this flat, one for ladies and one for gentlemen, besides the rooms for electro-therapy and hydro-therapy.

" Then, in addition, we have the students' locker room and a reading room for the students where they can be comfortable and where they can do their reading quietly.

" The fourth flat is devoted to teaching entirely. Here we have our large lecture room which will accommodate one hundred students very nicely. The desk is fitted up with hot and cold water, gas and electricity, so that any kind of a lecture and demonstration can be given.

" We have also in the room one of Bausch and Lomb's best balopticons for giving demonstrations by lantern slides and also by reflection from text-books and also showing microscopic sections on the aluminum screen which accompanies the apparatus.

" Then in addition to this we have a suite of rooms devoted to pathology and bacteriology, the teaching of which is in the hands of Dr. Mills, who is from Chicago, and has taken special work along these lines to fit him for this department. He has his own private room where he has his library and his private microscope desk and apparatus for inspecting private research work; then he has another room devoted entirely to clinical laboratory work, where examinations are made of blood, sputum, urine, feces and other matters requiring examination in diagnosis.

" Another large room is devoted to pathology where we have twenty well-equipped microscopes for the use of the students, with also incubators, sterilizers and also apparatus for the

preparation of serum and of culture materials for carrying on work in pathology and bacteriology, and now he has also taken up work in a larger laboratory where he is conducting a variety of experiments and also training students in all this work of pathology and bacteriology. He has a biological conservatory where he is now cultivating all sorts of small water animals with a view to finding, if he can, the host of the parasite which is so common out here, but which is unknown to you in Canada, the lung distoma which produces ulceration in the lungs and this results in great hemorrhages, thus running down the vitality of the patient. Another laboratory on this floor is given up to organic and physiological chemistry, another is fitted up for physiology, and over this Dr. Van Buskirk, of Kansas City, presides. Then going to the attic we have a large well-fitted up dissecting room beautifully lighted and well ventilated, and here we are prepared for doing dissecting, although, as yet, we have not been enabled to do much at it. We have, however, a large series of French models which we use in teaching anatomy, and here also histology is taught by the man in charge of the anatomy. I have just ordered a large series of stereoscopic pictures for the teaching of anatomy and obstetrics from London and I hope they will soon be here. Stereoscopes are used in studying these subjects and it is certainly an excellent way of studying anatomy or anything of the kind.

"We have also established a photographic department and put in a well-equipped dark room for developing our pictures and this is in charge of my son Wilber, who takes a great interest in the work, and I hope that he will soon have a series of photographs which will, to some extent, show what we are doing and thus interest our friends perhaps in the work we are attempting to do here.

" Of course, in addition to this building, we have the former building, which is now used for hospital work alone. Here we have nothing but the ward work and the operating department, so that it is, compared with what it formerly was, quiet, clean and very much better for all of that.

" I am glad to say that the taking out of so much of the disturbing element which was in existence when our dispensary work was done there has resulted in much better surgical results

than we ever had before. I think that we have not now for a great many months had a single case of pus following an operation. This building accommodates sixty-two beds and can be enlarged if our work grows so as to demand it.

"We have a nursing school here in which young Korean women are trained and, at the present time, I think we have some seventeen nurses in training, and expect to graduate a class of about four this coming summer. They make very good nurses. This will be apparent when I tell you that the operating department is entirely under the charge of one of the nurses who is not yet a graduate. All preparations for operations are done by her and by one of the other nurses under her supervision and we never have to think of the preparation of the patient or of the operating room or of the instruments other than to let her know what the operation is to be and when it is to be performed, so that she will have time to get things ready.

"We are now planning to build a Nurses' Home close to the Hospital, part of it to be a home for the Korean nurses and part of it for the American nurses, and when this is done we shall have a building set free which was intended, when built, for an isolation department, which has recently been occupied by the Korean nurses. Our plan will then be fairly complete and after that we have to think of little except enlarging as the growth of the work necessitates.

"I have been out here now over twenty years and at no time have I been free from building operations, so that I am beginning to think that it is time to let it stop and let my mantle fall on some other shoulders. I do not know yet, however, how this will be.

"I am hoping that some day we may get a well-qualified pharmacist who can take charge of the manufacturing department as well as of the sales department, so that I may be relieved from the details of this work. Of course, as it is, it falls on my own shoulders but I would be glad to put this on someone else.

"At the present time we are on the lookout for another good nurse. Miss Forsyth has been given permission to take part furlough in March of 1915, and she has told us that she may not return to the field. This, of course, has thrown us

into a state of great concern because she is at the head of the Hospital and of the Nurses' School, and if we are to have someone to take her place we ought to have someone here at once to be learning the language and to be getting into touch with the work before Miss Forsyth goes away. I am, therefore, on the lookout for such a person and if you know of anyone who will be suitable for this work I will be glad if you will let me know about her and I will get into correspondence with her.

"We have a large church now, meeting regularly in the Hospital and College Chapel, and this chapel will accommodate from 800 to 1,000 people seated in Korean style on the floor and, though it is not yet filled, we have a very nice congregation every Sunday with several branch churches out in the suburbs, all run by men who go out from this church."

THE WELLCOME HISTORICAL MEDICAL MUSEUM

The Historical Medical Museum, which was founded by Mr. Henry S. Wellcome in connection with the Seventeenth International Congress of Medicine, was re-opened on May 28th as a permanent institution in London. It is now known as the "Wellcome Historical Medical Museum," and is open daily from 10 a.m. to 6 p.m., closing at 1 p.m. on Saturday; entrance, 54A Wigmore Street, Cavendish Square, W. Since closing last October the collections in the Museum have been considerably augmented and entirely rearranged. Many objects of importance and interest have been added, which it is hoped will increase the usefulness of the Museum to those interested in the history of medicine. Members of the medical and kindred professions are admitted on presenting their visiting cards. Tickets of admission may be obtained by others interested in the history of medicine on application to the Curator, accompanied by an introduction from a registered medical practitioner. Ladies will be admitted, *only* if accompanied by a qualified medical man.

Personals

Dr. Herbert Bruce sailed per S.S. *Aquitania* for England on July 8th.

Dr. N. A. Powell spent two weeks last month at his fishing lodge on the Magnetawan river.

Dr. Geo. Strathy, of 143 College Street, recently returned after a flying trip to England.

We beg to congratulate our fellow-collaborator, Dr. W. E. Gallie, on his recent election to membership in the American Orthopedic Association, which met a few weeks ago in Philadelphia. Dr. Gallie's thesis was "A Report of Experiments on Animals Conducted in the Surgical Laboratory of the University of Toronto, on Bone Grafting."

Drs. W. J. and Norman Wilson have removed from 159 College Street to their new home at 380 Bloor St. West.

Dr. W. A. Young, with Mrs. Young, attended the meeting of the American Medical Editors' Association at Atlantic City, N.J., in June.

Among the Canadian physicians who attended the American Medical Association at Atlantic City in June were: Drs. Sam Cummings, J. Milton Cotton, Chas. Hastings, J. W. S. McCullough, Dr. McConnell, Dr. Beattie and Dr. Perfect, all of Toronto.

Dr. W. B. Thistle, of College Street, spent July at Go-Home, Georgian Bay.

Dr. Fred Starr will remain at his bungalow on the Georgian Bay till the end of August.

The medical profession throughout Canada were peculiarly gratified to find the name of Thomas Roddick, of Montreal, among the list of those receiving birthday honors at the hands of His Majesty. The decoration is richly deserved and we only regret that it did not come sooner.

We beg to congratulate Dr. B. E. McKenzie on the splendid showing he made in contesting one of the Toronto ridings at the recent Provincial elections. Though the doctor did not win, he materially advanced the interests of the great moral issue placed before the electorate.

The Physician's Library

Poor Richard Almanack.

We have taken occasion in previous issues to refer to the exceedingly clever pieces of advertising gotten out by The New York Pharmacal Association of Yonkers, N.Y. Their most recent effort is a booklet entitled "Poor Richard Lactopeptine Almanack for the Year 1914." Its title page describes better than we can just what it contains—"containing ye days of ye twelve months, ye voice of ye stars, divers wise sayings and good advice, some witte, much sense and more nonsense"—"Dedicated with fear and trembling to Dignified Doctors by Doctor Physyk, with apologies to Benjamin Franklin (dead this long while)."

It is clever. If you have not received a copy, send for one. It can be procured in return for your card.

Pellagra. By GEORGE M. NILES, M.D., Professor of Gastro-Enterology and Therapeutics in the Atlanta School of Medicine, Atlanta, Ga. Octavo of 253 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1912. Cloth, $3.00 net.

Pellagra is a comparatively new disease for the American practitioner to wrestle with, and unfamiliarity with it doubtless leads many cases to be overlooked. Recently a tabulation of cases reported shows its presence in thirty-four states, and those absent from the list are probably not exempt from the disease. The author of this book estimates the total number of cases in this country at the present time at from six to ten thousand. There is a condition confronting the profession which demands that it arm itself with such knowledge as is available as to the etiology, symptomatology and treatment of the disease, and this book is among the first to discuss the subject from the American standpoint.

Modern Surgery: General and Operative. By J. Chalmers DaCosta, M.D.; Samuel D. Gross, Professor of Surgery, Jefferson Medical College, Philadelphia, Pa. Seventh Edition, revised, enlarged and reset. Octavo of 1,515 pages, with 1,085 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company. 1914. Cloth, $6.00 net; half morocco, $7.50 net. Sole Canadian Agents: The J. F. Hartz Co., Toronto.

Any work from the pens of J. Chalmers DaCosta and Samuel D. Gross would be more than likely to receive prompt recognition, but the mere fact that such a volume now appears in its seventh edition means that its success has already been assured. The authors have been most considerate of the profession in keeping this volume down to reasonable size, too many single volume works on surgery nowadays being altogether too large and unwieldy. The seventh edition shows the most careful revision and has been almost rewritten. W. A. Y.

Spirochaetes. By W. Cecil Bosanquet, M.D., Fellow of the Royal College of Physicians, London. Octavo of 152 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Artistically bound. $2.50 net.

Heretofore the subject of spirochaetes has been touched upon only incidentally in works that treat of pathology in general and in detached articles here and there, touching upon some special phase of the subject. Now, however, we have a book that deals with the spirochaetes alone and exhaustively. The author has made some interesting investigations upon two species of this genus, hence he speaks with authority, and his statements may be taken as having weight. He is to be complimented on the entertaining style he has made use of in presenting this technical subject.

The Health Master. By Samuel Hopkins Adams, Associate Fellow of the American Medical Association. Boston and New York: Houghton-Mifflin Company. The Riverside Press, Cambridge. 1913.

Any physician wanting to secure a book eminently suitable for summer reading, a story that will interest and almost fasci-

nate him while lounging in a hammock and taking it easy, should purchase *The Health Master.* It will pass a few hours most delightfully. W. A. Y.

The Immediate Care of the Injured. By Albert S. Morrow, M.D., Adjunct Professor of Surgery in the New York Polyclinic. Second edition, revised. Octavo of 354 pages, with 242 illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $2.50 net.

This book in its second and revised edition fully meets its purpose—the instruction of the layman for the care of the sick and injured in emergency until the doctor arrives. One-half of it deals entirely with the anatomy and physiology of the human body. The suggestions in the last half and instruction as to immediate care are excellent for the doctor as well as the layman. Especially valuable are the suggestions in cases of acute food or drug poisoning. This edition is a very explicit instructor of good value.

Luxor as a Health Resort. By W. E. Nickolls Dunn, M.B., Lond.; M.R.C.S.; L.R.C.P.; and Geo. Vigers Worthington, M.B.; B.C. Cantab.; M.R.C.S.; L.R.C.P.; Superintendent Medical Officers to the Luxor Hospital for Natives. London: H. K. Lewis, 136 Gower Street, W.C. 1914.

This little book will be found of great usefulness to the physician who has been recommending his patients to pass the winters among the sphinxes. It will be equally interesting to the traveller who is under the impression that Cairo is the only place in Egypt worthy of a stop-over. The book gives a splendid idea in a few pages of "the conditions in Egypt, its advantages and drawbacks, its virtues and its dangers."

Pathfinders of Physiology. By J. H. Dempster, Editor of *The Detroit Medical Journal.* Published by the Detroit Medical Journal Company.

In this short volume the author gives a very interesting account of a number of leaders in physiology. He gives short

descriptions of happenings in both their private and professional lives. Beginning with Harvey, and the circulation of the blood, he traces the master minds in physiology down to Virchow in his descriptions of cellular pathology. G. S. S.

Chemical Pathology. Being a Discussion of General Pathology from the Standpoint of the Chemical Processes Involved. By H. Gideon Wells, Ph.D., M.D., Professor of Pathology in the University of Chicago and in Rush Medical College, Chicago. Second Edition, thoroughly revised. Octavo of 616 pages. Philadelphia and London: W. B. Saunders Company. 1914. Cloth, $3.25 net. Sole Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

Views on this important subject are changing so rapidly that it necessitated the rewriting of many portions of this work in its present edition; particularly is this true in the chapter on immunity and ductless glands.

The section on carbohydrates, metabolism and diabetes has been thoroughly revised by Dr. Rollin T. Woodyatt.

The full discussion of historical development, and discarded evidence has been omitted. Since the first edition appeared the English-speaking societies interested in bio-chemistry agreed upon certain rules of nomenclature and spelling; these changes have been applied in the revised edition.

The new field of colloid chemistry that is attracting the attention of all enthusiastic scientists has been given a prominent place in this work and makes fascinating reading.

The book covers the field of pathological physiology and chemistry, is well gotten up, plain of type, and should supply information to a varied group of readers. W. H. C.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared original articles, etc. Edited by Henry W. Cattell, A.M., M.D., with various collaborators. Vol. I. Twenty-fourth series. 1914. Philadelphia and London: J. B. Lippincott Co.

Four departments are represented in the first volume of the twenty-fourth series of this popular quarterly. Treatment and

therapeutics has seven articles, on nephritis, cardio-vascular, renal regulation, rheumatism, toxicology, constipation and inhalation, all enjoyable reading, and the first four giving a good review of present-day therapeutics of the subjects discussed.

In surgery there is a well illustrated article on surgical treatment of infantile paralysis, while under Progress of Medicine the editor has given a splendid 90-page summary of many of the important articles which appeared throughout the literature in 1913.

The number is quite up to its usual standard.

J. H. E.

A Reference Handbook of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine, and Allied Science. By various writers. First and second editions edited by Albert H. Buck, M.D. Third edition, completely revised and rewritten. Edited by Thomas Lathrop Stedman, A.M., M.D. Complete in eight volumes. Volume three. Illustrated by numerous chromolithographs and six hundred and sixty-five half-tone and wood engravings. New York: William Wood & Company. 1914.

Volume three of this splendid work is almost superior to the preceding two. The Reference Handbook is without doubt one of the most comprehensive medical works published in years, and both the writer's personal friend, Dr. T. L. Stedman, and the publishers deserve sincere congratulations on the result of their labors. Volume three contains no less than 539 separate articles, and though we admit we have not as yet read all, those studied are of exceptional merit. The biographies of physicians of ancient and modern times alone make the volume worthy of possession by Canadian physicians. We note that Dr. H. B. Small, of Ottawa, is the only Canadian contributor in this particular volume. The sections devoted to disinfection, health resorts and mineral springs, electro-coagulation, colon bacillus infections, and diabetes are indeed worthy of their authors. From a mechanical standpoint the volume could hardly be excelled, the illustrations being particularly good.

History of Medicine, with Medical Chronology, Bibliographic Data, and Test Questions. By Fielding H. Garrison, A.B., M.D., Principal Assistant Librarian, Surgeon-General's Office, Washington, D.C., Editor of the "Index Medicus." Octavo of 763 pages, many portraits. W. B. Saunders Company, Philadelphia and London, 1913. Cloth, $6.00 net; half morocco, $7.50 net. Sole Canadian agents, The J. F. Hartz Co., Ltd., Toronto.

Over a year ago the publishers announced this volume, and we have been anxiously waiting its appearance. Our interest was stimulated by Dr. Garrison's list of texts illustrating the History of Medicine, which appeared in the Index-to-catalogue, Surgeon-General's Library, Vol. xvii, Second Series.

This list was a splendid skeleton on which to frame the body which has now appeared and into which the author has breathed the breath of life.

No adequate review of this work can be given in the space at your reviewer's disposal.

Medical history and advancement is divided into periods, each of which is carefully reviewed and the stepping-stones of progress carefully pointed out. After an introductory chapter on primitive medicine, Egyptian medicine is considered, then Oriental, Greek, Byzantine, Mohammedan and Jewish. This brings us to 1096 A.D., the beginning of Medieval medicine; another 250 years brings us to the Renaissance and the Revival of Learning during which time printing developed and medicine soon began to progress. After 1600 each century receives separate consideration.

Special mention should be made of the chapter dealing with early medicine and the short biographies of eminent men, with their portraits. The author has given us a wonderful collection of the faces and dress of men of whom we daily speak in our work, those who have left their impress upon medicine, many whose names are preserved eponymically.

Every physician should see this book, and to see it is to place it on his shelves—or rather near his comfortable reading-chair where, when weary with his work, he can be refreshed by reading of the trials, the labors, the successes of the master minds in medicine, surgery and the allied sciences, whose faces

he can see, whose personality he can trace, and whose influence he can feel.

The profession owe a debt of gratitude to Dr. Garrison for this work. J. H. E.

Diseases of the Heart. By John Cowan, D.Sc., M.D., F.R.F.P.S., Professor of Medicine, Anderson's College Medical School; Physician Royal Infirmary; Lecturer in Clinical Medicine in the University, Glasgow; Examiner in Medicine, Royal Army Medical College. With Chapters on the Electro-Cardiograph by W. T. Ritchie, M.D., F.R.C.P., Physician Deaconess Hospital; Assistant Physician Royal Infirmary, Edinburgh; and the Ocular Manifestations in Arterio-Sclerosis, by Arthur J. Ballantyne, M.D., F.R.F.P.S., Surgeon Eye Infirmary, Glasgow. London: Edward Arnold. 1914. Price 15s net.

The many advances in diagnosis, prognosis and treatment of heart and arterial disease during the last few years make the re-writing of the whole subject a necessity. The author has done this in a practical way, based on his own experiences and from observations in his own wards.

A knowledge of the enervation of the heart, followed by the observations with the polygraph and the electro-cardiograph and the X-ray pictures have placed the present knowledge of cardiac affections on an entirely new plane and modified our ideas of prognosis and treatment. This book places the subject before us in a plain, direct and readable form, and will be found of great value to all who wish to keep pace with the latest advances in this special line.

There are 199 illustrations giving the normal and morbid anatomy of the heart and arteries and the various tracings and X-ray pictures. W. J. W.

The Home Nurse. By E. B. Lowery, M.D., author of "Herself," "Confidences," "Truths," etc. Chicago: Forbes and Company. Price, $1.00.

This book is written for use in the home, and technical terms are as far as possible avoided. Full directions are given for

first aid and for nursing in the home and helping the physician in his treatment.

We think the book an excellent one where one cannot have a trained nurse and where some member of the household has to be relied upon for the nursing. W. J. W.

Medical Research and Education. Being Volume II of a series for the promotion of Scientific Research and Educational Progress. Edited by J. McKeen Cattell. New York and Garrison, N.Y.: The Science Press. 1913.

This work consists of a series of lectures or contributions by distinguished medical educationists, among whom may be mentioned W. H. Welch, W. H. Howell, Franklin P. Mall, Llewllys F. Barker, W. B. Cannon, W. T. Councilman, late C. A. Herter, late Henry P. Bowditch, S. T. Meltzer, etc. The volume is of interest not alone from the importance of the subjects considered, but as an evidence of the deep earnestness in which matters pertaining to scientific medical education are being considered in the United States and the trend of thought in reference to them. The work should be widely read, not alone by those interested in teaching, but by everyone who is interested in the future of medicine and of the medical profession. The articles as a whole represent mostly the viewpoint of the laboratory worker rather than the clinician or practitioner, as one might expect; but as the opinions of those representing especially the scientific side of medical education always exert an important effect on clinical teaching and practice, it is most important that their opinions should be widely known. The work should therefore be well received by the medical profession as a whole. H. B. A.

Solidified Carbon-Dioxide. By Ralph Bernstein, M.D., Philadelphia, Pa. Hammond, Ind.: Frank S. Betz Co.

This little work will undoubtedly be appreciated by many physicians. Carbon-dioxide snow has proved its worth, and for many conditions, if properly used, is probably the very best treatment. It is always instructive to have the experience of

a man brought before the profession. The author's experience has been extensive and is given in a clear and fair manner. The book will be especially useful to beginners in the use of carbon-dioxide snow, as many details are given in various cases which must be of great service. D. K. S.

A Text-Book of Histology. By Frederick R. Bailey, A.M., M.D. Fourth revised edition. New York: William Wood & Co. Price $3.50 net.

This is a very complete work on histology. It is rather fuller in detail than most works. Students will find it a great assistance in their laboratory work as the technique for staining, etc., is excellent. For the size of the work and thoroughness the price is very moderate.

D. K. S.

Massage—Its Principles and Technic. By Max Bohm, M.D., Berlin, Germany. Edited, with an introduction, by Chas. E. Painter, M.D., Professor of Orthopedic Surgery at Tufts College Medical School, Boston. Illustrated. Philadelphia and London: W. B. Saunders Company. 1913.

This is a translation of Max Bohm's book, and depends largely for its value, to the average practitioner who does not understand the technique, upon its illustrations, which are very exceptionally good. They are admirable illustrations of the application of the principles outlined in the text. It is a book intended for the student who desires to assist the doctor in an intelligent manner in massage and gymnastics, as well as for the doctor and educated masseur. A. J. J.

Skin and Venereal Diseases. Baum-Moyer. Practical Medical Series. 1913. Volume IX.

This little volume is always welcome, as it presents a yearly review of the most important features in skin and venereal diseases. The 1913 volume is especially interesting, as it contains a splendid chapter on medical history and on sociology.

Cunningham's Text-Book of Anatomy. Edited by Arthur Robinson, M.D., F.R.C.S., Ed., Professor of Anatomy, University of Edinburgh. Enlarged and Rewritten. Illustrated by 1,124 figures from original drawings, 637 of which are printed in colors, and two plates. New York: William Wood & Co. Cloth, $6.50 net; half morocco, $7.50 net. 1913.

Cunningham's Text-Book of Anatomy has now become a standard work, and it is hardly necessary to do more than to call attention of students and practitioners to the fact that a new edition (the Fourth) has now appeared.

The death of Professor Cunningham, the original able editor of this work, made it necessary to obtain someone to take his place, and his successor in the chair of Anatomy at the University of Edinburgh, Professor Arthur Robinson, has undertaken the duties of editor of the present edition. Professor Robinson is well known in this country, and many of his old students in Canada who admire his ability as a teacher will be glad to learn that this important work is placed under his editorship. It is interesting to observe that the section on ductless glands has been rewritten by Professor A. Campbell Geddes, formerly of Dublin, but now Professor of Anatomy of McGill University.

The work as a whole maintains the high standard of perfection which characterized former editions and will be looked upon as one of the best guides to the study of the subject either for the undergraduate or the practitioner.

DEATH OF DR. E. E. KING'S DAUGHTER

We wish to take this opportunity of tendering to our esteemed confrere, Dr. Edmund E. King, our sincere sympathy on the death of his daughter on July 7th.

Obituary

Dr. W. E. Hamill, the well-known oculist, of 676 Huron Street, died on May 31st. He had been ill all winter, and his relatives did not hold out any hope of his recovery.

The late Dr. Hamill was a man of distinguished career. He began by winning scholarships in mathematics and anatomy at Toronto University. He took the degree of M.D. there, and followed it up with a course in London.

Always a staunch supporter of the Liberal party, he was an ardent advocate of the single tax. He took a great interest in bowling, and was a member of the Masons. The widow and one daughter live in Toronto, and there are also a sister, Mrs. Alfred Graham, in Aurora; a brother, I. D. Hamill, at Meaford; and T. M. Hamill, at Los Angeles, Cal.

Dr. Albert Roberts Pyne, of 134 Carlton Street, died on July 6th at his residence after an illness lasting over eighteen months. The end came as the result of paralysis.

The late Dr. Pyne was born in Waterford, Ireland, sixty-five years ago, and came to Canada with his parents when only a year old. On arrival in Canada his father, Dr. Thomas Pyne, who later became registrar of the College of Physicians and Surgeons, settled in Newmarket. It was in that town that Dr. Pyne received his primary education, and later obtained his medical degree at Toronto University.

On receiving his degree the late Dr. Pyne began his practice at 261 Gerrard Street East, where he remained till 1904, when he moved to his late residence. In 1883 he married Miss Margaret Frazer, of Whitby, and is survived by his widow and one daughter, Miss Hester Roberts Pyne, who lives at home, and one brother, the Hon. Dr. R. A. Pyne, Minister of Education for Ontario.

For many years the late Dr. Pyne had held the position of Dominion analyst. He was an Anglican and a Conservative.



THE LATE DR. J. J. CASSIDY

THE LATE DR. JOHN JOSEPH CASSIDY

Since the inception of The Canadian Journal of Medicine and Surgery, Dr. J. J. Cassidy has been the untiring and brilliant literary editor. Conscientious and careful to a fault, in this day of hurry and surmise, he had always the time to be correct, and through the scholastic training of a lifetime was master of his subject.

As a linguist he had few peers and scarcely an equal. As a man he had great personal dignity and pride, and life for him held not only great pleasure in his home and family circle, but a still deeper vein of seriousness.

Quietly and trustfully on the morning of August 1st last he suddenly passed out into the Great Beyond.

Dr. Cassidy was born in the city on July 4th, 1843, his father being James C. Cassidy of Fermanagh, Ireland, and his mother Margaret Foley. He was educated first at St. Michael's College and later at the College of St. Anne de la Pocatiere, Quebec. He received the degree of M.B. with the Starr gold medal from the Toronto University in 1868, and M.D. the following year. From 1868 to 1875 he was surgeon at the House of Providence, and was connected with the Toronto General Hospital from 1869 to 1884. The succeeding year he was president of the Toronto Medical Society. Dr. Cassidy was examiner in medicine and therapeutics at the University of Toronto from '86 to '88, and had been a member of the Provincial Board of Health since '82, at one time having held the chair. He sat on the city Separate School Board for three years and the Public Library Board for a like time.

At the international conference held in 1891 he represented the Ontario Health Department and read a paper on state hygiene, subsequently being appointed a member of the honorary council of the British Empire of Congress. At the conference held by the provincial and Federal public health authorities he was appointed chairman in 1893, to prepare the resolutions adopted by the congress. He was the author of many papers upon medical subjects, and of the text book used in the Normal schools, "Manual of Hygiene." He was a senator of the University of Toronto, representing St. Michael's College, and his name had been mentioned upon several occasions in connection with the Canadian Senate.

To the one dearest to him in all this world we humbly offer the deepest sympathy. Into her loneliness may the greatest of comforters come, the golden memories of yesterdays spent in happiness together.

Amid his labors and crowned with much success our friend of the years has entered into rest, "Until the day dawns and the shadows flee away." W. A. Y.

Editorials

DOCTORS TO THE FRONT

At the date of writing, we hear of a great many Toronto surgeons who have enlisted for active service. Among them are Major P. G. Goldsmith, Captain F. Winnett, Dr. George Strathy, Dr. D. E. Robertson, Dr. Bruce Robertson, Dr. Burgess, Dr. Humphry, Dr. McKenzie and Dr. Howard Burnham, the last four named being from Toronto General Hospital.

Lt. McKillop left several weeks ago, in charge of 34 men, to guard the Welland Canal. To their credit be it said that nine qualified doctors have gone over under Lt. McKillop as privates, including Lt. Jeffs, of Toronto General Hospital.

Lt. W. Cruise has also offered his services.

Col. McPherson is Acting Principal Medical Officer of this district in place of Lt.-Col. Fotheringham, recently retired. The following are some of the units in which the profession in and around Toronto are most keenly interested.

No. 1 Clearing Hospital. Lt.-Col. Marlow in command. The officers include Capt. C. E. C. Cole, Capt. F. J. Munn, Lt. Dowsley, Lt. Angus Campbell, and Lt. Withrow.

10th Field Ambulance. Major W. B. Hendry in command. The officers include Capt. G. Hyland, Capt. W. H. Lowrie, Lt. H. L. Jackes, Capt. Smirlie Lawson, Lt. McKillop and Lt. Hanley.

11th Field Ambulance (Major J. T. Gilmour being in the Old Country) Major C. J. Currie is in command. The officers include Major C. Warren, Major E. B. Hardy, Capt. H. R. Holme, Capt. W. L. C. McBeth, Capt. J. Wood, Capt. Gordon Rice, Capt. J. C. Calhoun, Lt. P. G. Brown, Lt. R. H. Sheard.

13th Cavalry Field Ambulance with Major Wallace Scott in command. The officers include Capt. R. S. Pentecost, Capt. G. R. Philp, Capt. N. J. L. Yellowlees, Capt. W. T. McLean, Lt. W. Ogden, Lt. P. K. Menzies, Lt. George Campbell.

"If I can keep one heart from breaking,
I shall not live in vain;
If I can ease one life the aching
Or cool one pain
Or lift some fainting fellow
Into his strength again,
I shall not live in vain." W. A. Y.

ENGLAND EXPECTS THAT EVERY MAN

God Save Our Gracious King, God Save Our King

It is with pardonable pride that we place on record that, in this her hour of stress, the Motherland has been able to include in those of her loyal sons, who recently rallied to the Flag, a large number of our profession, who desire to do their share in assisting to crush once and for all that military paranoiac, Prince of Dictators and World-Defier, the Madman of Berlin.

It is perhaps a little out of the usual for the medical press to discuss continental politics, but we cannot refrain in this instance from expressing to the Mother Country our unswerving loyalty and our prayer that, as in the past, she will come out of this Titanic struggle "more than conqueror" and, with her faithful Allies, be, ere long, able to dictate her own terms in Berlin.

The profession of Toronto will, for the period of the war, lose a number of its representative members, who are going to the front. All we can say is that, if it is still found necessary that they don the uniform and go forward to, perhaps, receive their "Baptism of Fire," our prayers go with them for an early and safe return home.

One thing is certain, and that is that the Army Medical Service, Field Ambulance, and other units will have no reason to be ashamed of their Canadian brothers, who we know will be able, through their sympathy, to allay pain and suffering, and by their skill do their share in upholding the high standing of Canadian surgery.

As we go to press, the I. O. D. E. have started an agitation among the various Women's Clubs all over Canada to raise the funds to buy and equip a hospital ship. It is a splendid idea and in these days of skilled surgeons and trained nurses, many a brave-hearted young soldier, though he be badly wounded, may be saved for Home and Country. In reading over these little incidents, or hearing them told down South, of the Civil War, one's heart is cheered to learn of such

occurrences as where ladies without a nurse's training followed, even on to the battlefield and did so much for the wounded and dying. In the present day of trained nurses (and all honor to the 500 or more young women who have, too, offered to follow the path of the renowned Florence Nightingale in the present war), even greater results may be confidently expected, and, while we all hope that the war may be short and victory soon be ours, and that a Hospital Ship may not be needed from Canada, still there is always a feeling of security in being ready and, if needed, the proposed Hospital Ship will prove the most blessed of loyal gifts.

If we would dare let our hearts speak, we would all "cry out in the market place" that Jack Canuck was just a little too good for war; but that note must die in our throats and we must shout with the multitude—"On to victory and world-wide peace."

In the words of Mr. R. J. Alexander

The night is full of darkness and doubt,
The stars are dim and the hunters are out,
The waves begin to wrestle and moan,
The Lion stands on his shore alone,
And sends to the bounds of earth and sea
The first low notes of the thunder to be.
Then East and West through the vastness dim,
The Whelps of the Lion answer him.

W. A. Y.

Original Contributions

ST. JOHN'S MEETING, CANADIAN MEDICAL ASSOCIATION

JOHN HUNTER, M.B., TORONTO.

From motherland, neighboring republic, city, town and sequestered village throughout the Dominion, medical men came to attend the forty-seventh annual meeting of our great national medical congress. Any of those who go but seldom to these meetings, must be reminded of a song in which the singer expresses astonishment at three things, viz.: the presence in Paradise of some he did not expect to see, the absence of expected ones, and, strangest of all, to find himself there. Why do medical men go to them? Many subsidiary reasons could be assigned, but is not the real one a spiritual influence? Like religion, science impels men to do certain things, and under this impulse the physician is drawn as imperatively to the meeting of a medical association as is the religious devotee to his church. The suppression of this influence mars the work of the physician, and also impedes the medical progress. Too many of us labor under the delusion that the scientific spirit can only be nurtured under certain environments, e.g., in the professor's chair, in laboratory. or in hospital clinic. Nay, verily, it is just as free to all, and just as vital to progress in our science and art as was the manna in the wilderness to the ancient Israelites. The general practitioner should be like the practical gardener, who tests the virtues of the hot-house products, assigning to the garbage heap the non-productive and worthless plants, and cultivating the good ones so as to get thirty, sixty, or a hundred fold. These physicians, inspired by a scientific spirit, will take the theories and methods of the college professor, pathologist, and clinician, test them in general practice, relegate the worthless to oblivion, but with the true accelerate medical progress, and enrich medical literature.

A Great Meeting.

This meeting at St. John, N.B., will be a memorable one for many reasons. The city itself lent some unique attractions. Its location on a great arm of the sea and the Bay of Fundy—and the immense height of the tide—25 or 30 feet—its hilly and irregular streets, the solid rock through which sewer and water mains have to be tunnelled, the weird surroundings of the sea—all these attracted attention and charmed the visitors. The unfailing courtesy and unbounded hospitality of the people, and of the local physicians, were, like the weather, all that could be desired. The massive and tastefully decorated armory furnished abundant space for all the meetings, and for the display of manufacturers' and publishers' wares.

General Sessions.

The Lieutenant-Governor, the Minister of Marine and Fisheries, and the Mayor, vied with each other in the heartiness of their welcomes. The President, Dr. Murray Maclaren, gave a resume of the history of St. John, and of the progress of the Canadian Medical Association, from its first meeting in St. John. The President made a most exemplary presiding officer. His unfailing courtesy, and delicate tact, kept the meeting under full control. Dr. McCrae gave the address in medicine. He emphasized the need of special care in the observation of all the factors in a case. To err in making our deductions was but human, but all should strive to be accurate observers. Dr. Rutherford Morison, of Newcastle-on-Tyne, took his audience over the fundamental factors in inflammation. He thinks bacteriology has rather overshadowed the morbid conditions resulting from inflammatory action. Dr. Jellett, Master, Rotunda Hospital, Dublin, gave a very scientific and practical paper on prolapsus uteri. He drew special attention to the normal suports of the uterus. The treatment was the restoration of these as far as possible.

A combined discussion on "Intestinal Stasis" was held on Thursday morning. Geddes, of Montreal, took up the anatomy. One of his slides showed very plainly the strong band of muscular fibres above the umbilicus. It seemed strange, as it was misleading, that neither Geddes, nor any of the subsequent speakers—medical or surgical—called attention to the most fun-

damental factor in the prevention of intestinal stasis, viz., normal abdominal pressure. The suspensory mesenteric folds are too elastic to afford much support to liver, stomach, kidneys, or intestines. The writer, thirty years ago, at the special request of the late Dr. J. E. Graham, suspended the body of a patient who had recently died at the General Hospital, and made a transverse incision of the whole thickness of the abdominal wall just above the umbilicus. Practically all the abdominal organs in the supra-umbilical region immediately descended. In the absence of proper abdominal support, the intra-abdominal organs may descend from one to four or five inches. If parents, teachers and physicians, would look after the proper development of children's and youths' abdominal muscles, ninety-five per cent. of all surgical interference for intestinal stasis would cease, for with proper abdominal support stasis would be an exceedingly rare event.

Public Health.

This feature of the meeting attracted great attention. The lay press gave lengthy reports of the different sessions. Special attention was called to the faulty hygienic conditions existing in country life. In fact, out in the country, exactly the same vicious influences may be found that exist in the slums, viz., the absence of sunshine and fresh, pure air in the houses. Farmers' wives and daughters are pale and anemic, because, in order to protect carpets and furniture, they shut out all sunshine. Even the rural mail delivery becomes an evil when it prevents wife or daughter from taking an outdoor trip. A remedy for the high cost of living was sought in having cities take up large tracts of land and place men on it, with facilities for farming. Dr. Hodgetts gave a public lecture on Thursday evening. He gave the anti-vaccinationists a roast. He dealt very fully with school inspection, work of health officers, town-planning, etc. A large audience gave a most attentive hearing, and he was tendered a very hearty vote of thanks.

Suggestions.

Why do the readers of papers persist in so much "padding of papers"? Ever and anon, reference is made to ancient his-

tory. Again, why such minute description of the normal anatomy which anyone can read at home at much less expense? Why not give a "snappy medical talk" on the subject, and leave the paper to be printed? Medical men are notoriously bad readers, and the acoustic conditions are generally very defective. Fewer papers and more time for discussion. With long papers a few men may monopolize the whole time of the session, and exhaust the energies of those in attendance. It is not half so exhausting to listen to brief discussions, as it is to long dry papers.

In regard to the election of the Association's members to the Executive Council, before this takes place, there should be placed in the hands of every one present a type-written copy of the names and addresses of all present, and then have the vote taken by ballot, without nominations. In this way an impartial representation could be obtained. At St. John, a number of names were placed on the blackboard, then these were written—each on a slip of paper, put in a hat, and the President asked to draw out the requisite number. The drawing was not done publicly. Such a procedure is open to severe criticism.

DR. HERBERT A. BRUCE HONORED

We take this opportunity of extending to our esteemed confrere, Dr. Herbert A. Bruce, our sincere congratulations on the honor conferred upon him by the Clinical Congress of Surgeons, which met a few weeks ago in London, England. Dr. Bruce was elected First Vice-President, with Dr. Charles H. Mayo, of Rochester, Minn., as President. We consider that the honor is heartily deserved.

We extend congratulations to Dr. Norman King Wilson, 308 Bloor St. W., on his having entered matrimony, August 4th. Dr. Wilson is one of Toronto's youngest Nose and Throat Specialists.

Selected Articles

INSTRUCTIONS FOR THE MEDICAL INSPECTION OF IMMIGRANTS

BY PETER H. BRYCE, M.A., M.D.,
Chief Medical Officer, Department of the Interior, Ottawa.

Section I.

GENERAL INSTRUCTIONS RE INSPECTION.

In order to comply with and enforce the Immigration Act and Regulations, the attention of Medical Inspectors and others connected with the Immigration Service is drawn to the following directions regarding persons who arrive as immigrants at Canadian ports of entry.

1. Medical Inspectors are instructed to exercise due care, when making reports, to classify cases and to give such details of symptoms as will indicate the chief characteristics of the disease reported upon.

2. Examinations must be made in the daytime, and under no circumstances in badly lighted places. In dull weather artificial light must be used, and should shine from behind the examiner. The medical inspection should be carried out as soon as possible after arrival of the vessel in port, and before passengers are identified by the agent of the port.

3. Crowding of those presenting themselves for inspection must not be permitted, and the inspector must so arrange that he has free space of ten feet in front, so that he can observe properly the walk of the person approaching. Except infants under one year, children in arms must be placed on the floor to show if any evidence of infantile paralysis is present, while a proper view of the eyes may be had by causing the person to look at the raised finger as he approaches.

4. The Medical Inspector must look especially for lameness, ataxic gait and paralysis, spinal curvature and hunchbacks, and pigeon-breasts for evidences of disease.

5. He must further carefully examine the marks or stigmata of degeneracy, as strabismus, hare-lip, defects of the palate, defective speech, and any other abnormal developments.

6. He must also examine for evidence of rickets, as knock-knee, and for scrofulous glands of the neck, discharging ears, scabies on hands, etc.

7. Especially must he look for these several defects in all undersized persons, as it is in persons from the slums that these defects are most commonly present.

8. Having had the hat removed, he must examine the scalp for evidence of favus, tinea, pediculi, etc., and in all cases of baldness, where the scalp is in any way abnormal, hold them for special examination.

9. The eyes must be carefully examined by everting the lids and examining the mucous membrane for trachoma or chronic conjunctivitis, characterized by firm persistent granulations general or localized, often associated with a muco-purulent discharge, eroded mucous membrane with scar tissue in patches or bands, roughened cornea and pannus, trichiasis and entropion. The mild cases of conjunctivitis and blepharitis, due to smoke and dust of the voyage, should be distinguished from the contagious forms of disease.

10. He shall in all cases, before allowing the vessel to proceed, receive from the ship-master and surgeon a signed statement, giving the facts regarding diseases or accidents, if any, which have occurred or been present in patients during the voyage, and shall examine the vessel with a view to reporting to the Department any lack of structural or sanitary conveniences likely to promote the spread of disease amongst passengers.

11. Having detained for special examination persons suspected by himself, or referred to him by an immigration officer of any foreign country, or by the ship's officer, of any disease or condition dealt with under the Act, the Medical Inspector, in any doubtful case, shall detain and send the person to the Detention Hospital. The examination in detail of all cases *certified for entry* by the Superintendent of the Hospital, shall be reviewed by the Medical Inspector, and every *certificate for entry* shall bear the signature both of the Superintendent of the Hos-

pital and of the Medical Inspector. Whenever any serious difference of opinion exists regarding any case, the matter will be referred to the Chief Medical Officer of the Department for decision. Whenever the true nature of any case has been determined, as regards its incurable, or probably curable character within a given time, the written report of the superintendent of the Detention Hospital shall be transmitted at once to the Immigration Agent of the port for communication to the transportation company or companies interested for consultation as to the disposition of the case, in the matter of cost of treatment.

12. The report in any case where the physical condition is such as is likely to make the person a public charge, or is such as cannot be cured except by long treatment, shall recommend that the person reported upon shall be rejected. A copy of the detailed medical examination with the report thereon made to the Immigration Agent, if recommending rejection, shall, within twenty-four hours thereafter, be forwarded to the Department at Ottawa.

13. The details of examination of every case detained on account of suspected disease shall be entered in the record book supplied for the purpose, to be kept at the Detention Hospital, and to be filled out by the physician in charge. A weekly report shall be forwarded, signed by the Superintendent, to the Department at Ottawa, containing the particulars called for on the form supplied for the purpose, of all patients detained for treatment.

Section II.

REGARDING CERTAIN DISEASES.

1. *Heart Disease.*—Such disease is not readily indicated by observation alone; but certain appearances may be present calling for a physical examination. An undue obesity for a given age, with florid cheeks, thickened neck, thickened ear lobes and alae nasi, with breathlessness, taken together are sufficient to make a physical examination necessary. Similarly, an extreme pallor, incurved finger nails, and other evidences of mal-nutrition, suggest a condition demanding careful enquiry.

2. *Varicose Veins.*—These are not likely to be detected except when a general examination has been called for by some other

condition. They are liable to be associated with other diseases of circulation; but, if not, would be looked upon as due to some classes of occupation requiring long standing on the feet and to general mal-nutrition. Of themselves, they do not necessarily call for rejection, as rest with treatment will often effect a ready improvement.

3. First amongst diseases of respiration in frequency and importance is pulmonary tuberculosis. While a typical cough, with expectoration, the loss of flesh, the afternoon hectic, will promptly mark its presence in advanced cases, yet in other instances it will happen that only one or more of such signs are present. It is hence most desirable that any circumstances creating suspicion should be followed by a fuller examination of temperature, lungs and sputum. The presence of tubercle bacilli in sputum will give unquestionable evidence of the disease; while further verification is possible through the tuberculine test.

4. *Bronchitis.*—This may be acute or chronic, but in every case the person suffering should be detained for observation and treatment. Its close association with tuberculosis will be remembered, and the association of heart disease with the chronic form makes it necessary that any case be thoroughly studied.

5. The routine procedure in the examination of the eyes for disease, and the extent to which measures of exclusion must be exercised in cases of conjunctivitis, acute or chronic, have already been referred to. There are, however, defects of vision, whether due to mal-formation or disease, which in extreme cases must not be overlooked. Refractive errors, resulting in double vision, extreme atrophy, diseases of the choroid, iris, etc., so advanced as to be liable to detention, will probably be such as to make patients public charges. The course to be taken in such instances is evident.

6. *Conjunctivitis and Trachoma.*—Like other mucous membranes, the conjunctiva is liable to inflammation, induced by cold, dust and other foreign bodies, measles, smallpox, etc., and by infection with pus germs from abscesses, and contagion from other persons. Within 36 hours after inoculation, a burning sensation, increased secretion and some swelling of the eyelids are observed. Both the latter may become intense, and the inflammation, if not checked, ends in a profuse muco-purulent

secretion. Within a few days of its onset the inflammation begins to subside, the discharge is thicker, and the papillae of the conjunctiva are found swollen through lymph infiltration, resulting in groups of cells called lymph-follicles, or trachoma glands. This disease is very contagious in its acute stage, and to some extent so long as a muco-purulent secretion exists. Like other mucous inflammations, if neglected or occurring in badly nourished, strumous, or unhealthy persons, it may become chronic, resulting in hypertrophies of low vitality, with granulations and thickening of the conjunctival tissues. It may occur in all countries, especially with the cold, raw winds of spring, and is generally looked upon as distinct from purulent or granular conjunctivitis (trachoma). The distinctive feature of trachoma consists in numerous oval bodies developing in the tarsal conjunctiva. If this membrane is not inflamed, these appear prominent, translucent and sago-like. If they occur without any noticeable previous inflammation, they are usually discrete, create little discomfort, and are little, if at all, contagious. If more severe, they are accompanied with the symptoms of conjunctivitis. Within a fortnight numerous granulations are seen, with much thickening of the conjunctiva. It is contagious so long as any mucous secretion occurs. The severity of the disease seems to depend on the virulence of type of the particular microbe causing the inflammation, and on the health of the person attacked. Following thickening and hypertrophy, the mucous tissue begins gradually to contract, resulting in atrophy, while at other points the inflamed papillae, coalescing, have formed patches of lymph tissue. This type of tissue gradually lessens, resulting in its final stage in areas of scar-tissue devoid of epithelium; but such occurs only through neglect and progress of the disease for many months. It is a disease especially found in the people of Southern Europe and the East, and is due to infection chiefly through bad air, filthy habits, and overcrowding. It is spread in schools, barracks, lumber camps, chiefly through the hands of children, and the use of the same washing water and of common towels. Its progress towards a cure is often slow, depending upon the surroundings, personal hygiene, careful treatment, and physique of the patient.

7. *Baldness* (*Alopecia.*)—While baldness is common in men after 40 years, yet the frequency with which it is due to parasitic disease, demands that the Medical Inspector shall detain for more careful examination cases coming from the continent of Europe, where ringworm (Tinea trychophytina) and favus (Tinea favosa) are very common.

8. *Ringworm* (*Tinea tonsurans*).—This is especially common in the young, but not infrequently occurs especially on the scalp of adults. It is due to a parasitic fungus, which, present in the scales of the skin, spreading from the first red spot outward as a reddish ring, leaves a yellowish, scaly centre. In a week it may be of the diameter of an inch or more, and when attacking the scalp or head becomes more troublesome and persistent. As a disease of the scalp it is especially found in children, and spreads amongst them in families and schools very rapidly. It attacks the hair and its follicles, leaving branny scales, thinning the hair into bald spots, which appear bluish in dark-skinned, and greyish in light-skinned, persons. There are stumps of hair left, thicker than the healthy hairs, which are diagnostic of the disease. In such cases a careful examination of the hairs and scales by the microscope will prove the presence of the fungus. Treatment of tinea of the scalp is often troublesome and tedious, though by use of modern methods it may be greatly shortened.

9. *Favus.*—This disease, but little common in English-speaking countries, prevails in Poland, Russia and Italy, and, owing to its parasitic source and its persistence, demands most careful attention. Its most frequent seat is the scalp, where it causes first isolated areas, and finally, if untreated, of almost complete baldness. The fungus tends to heap up around one or several hairs, to $\frac{1}{3}$-inch diameter, forming separate round cup-like masses, or *favi*, of a sulphur yellow color, characteristic of this disease alone. These are seated, superficially embedded in the epidermis, and when lifted off by a forceps, show a surface convex, smooth and shiny, while leaving a pit of a bright red color, which, if left untreated, will soon fill up with fungus again. The fungus penetrates the hair and follicles, while the hairs, becoming brittle and wiry, soon break off or are destroyed at their roots. Gradually infected centres coalesce, and the yellow scales falling off, leave a mortar-like grey growth, crumpling off as scales, leaving the skin even whiter than normal, while

the skin at first inflamed now atrophies, and is drawn up as by cicatrization. Extended bald areas then show on the skin, which becomes uneven and shiny, markedly different from the adjoining healthy skin. Hence, when bald areas exist, close examination of the remaining hair and scalp must be made for new favus cups. A certain diagnosis is readily made by the microscope. The character of the disease makes its treatment usually prolonged, unless in the first stage, when only a few isolated cups are present. When treatment has caused the cups to disappear, several weeks without treatment are necessary to determine whether the growth will reappear from the hair follicles. The removal of the hair by forceps, with treatment, is a certain means of insuring success, but cures by close attention are frequently effected without it. The X-ray treatment is now generally practised.

10. *Eczema.*—This is a common disease of scrofulous and badly-nourished children, and is characterized by often widely-inflamed areas, which, though not infectious, demand in severe cases attention and treatment.

11. *Itch (Scabies.)*—This is a contagious disease, due to the insect (acarus scabiei) burrowing beneath the skin, especially of the front of the wrists and between the fingers of children; often diagnosed by the scratching caused through the intense itching. It causes papillae, and even pustules. The brownish furrow in the skin made by the insect burrowing beneath is diagnostic. Its rapid spread, if untreated, demands detention and treatment. It is acquired, like the other parasitic diseases, by contact, by wearing infected clothing, and by the common use of towels and other articles.

12. *Chickenpox (Varicella).*—This highly-contagious disease has distinctive features, causing it to be readily diagnosed, when its history is obtainable. Its sudden onset, with fever and vomiting, the appearance within 12 hours of the rash, which becomes vesicular within 24 hours, its passing on to the pustular stage within another day, the larger and more or less irregular outline of the pustules, their easy breaking down and rapid drying up,

and the absence of secondary fever, distinguish it from smallpox on the one hand, and impetigo contagiosa on the other. It must not be overlooked that errors of digestion, circulation, and various blood disorders, due to auto-intoxication, venereal disease, etc., are often productive of urticaries, resembling the acute eruptive diseases; while every such case must be detained for at least temporary observation and treatment.

13. *Hunchbacks, Pigeon Breasts and Knock Knees.*—While it is true that remarkable instances exist of the ability of persons much deformed or injured to earn a living, yet it is apparent that this will seldom be the case with such as are sent as emigrants to Canada. These are common results from rickets and other malnutritions associated with scrofula or tuberculosis, especially seen in persons from slums. It is apparent that such are likely to be employed indoors, and if not already diseased, are most likely to become tuberculized.

14. *Paralytics.*—While few are likely to be sent out as immigrants, yet, as cases of infantile paralysis will at times be found in a family of children, evidence of this must be sought in testing the ability to walk of all children of proper age. Less frequently, perhaps, cases of locomotor ataxia, due almost always to a specific cause, will be found, and as such, though progressive, may remain for years as charges on public charity. Their entrance must be especially guarded against. The same may be said of all palsies due to other causes.

15. *Hernia.*—This so frequent disease may, owing to the extent of the hernia, become of great importance in determining the question of an immigrant's ability to earn a living at manual labor. Liability to some sudden demand for a radical operation and its necessary hospital maintenance must not be overlooked in determining the advisability of admitting such persons as immigrants.

16. *Senility and Debility.*—Cases of such are not infrequent, the senile being chiefly parents sent for by their children. The assumption, of course, is that the children who have shown this interest will take care of their parents in their old age; but it is well that some guarantee be had by the proper authorities of some degree of financial ability on the part of such old persons.

Section III.

EXAMINATION FOR SUSPECTED MENTALLY DEFECTIVE IMMIGRANTS.

The report of the Royal Commission (England and Wales), published in 1908, defines nine cases under the heading of mental defectives, viz.:

1. Idiots.
2. Imbeciles.
3. Feeble minded.
4. Moral imbeciles.
5. Mentally defective epileptics.
6. Mentally defective inebriates.
7. Mentally defective deaf, dumb and blind.
8. Persons mentally inferior.
9. Persons of unsound mind.

Although section 3 of the Immigration Act provides for the exclusion of certain named classes, yet it is desirable that Medical Inspectors carefully discriminate in their examination regarding the character and degree of any mental defect, in order that, if later any case comes under review, the essential facts may be obtainable.

1. Of defective children English authorities speak of those who are *sub-normal, rather than imbecile or idiotic.* Inasmuch as such a person may be found as a member of a family whose members otherwise are healthy and desirable immigrants, special care should be taken to enquire into the cause of such abnormality, as to whether it is congenital or the result of disease. Mental disorders arrange themselves in two fundamental categories, characterized respectively by *insufficiency* and by *perversion* of the intellectual or moral faculties. Insufficiency may be either congenital or acquired, and where permanently established, it constitutes intellectual enfeeblement, even to dementia. Perversion, similarly, of the intellectual and moral qualities, may be congenital or acquired, resulting in hallucinations, delusions, morbid impulses, etc.

2. A feeble-minded person is defined as one who may be capable of earning a living under favorable circumstances, but who is incapable, owing to mental defect, from birth or an early age (a) of competing on equal terms with his normal fellows,

and (b) of managing himself and his affairs with ordinary prudence. Many such children are not congenitally defective, but have suffered from some acute inflammatory disease in infancy and as a result have had their development retarded in growth, in walking, and in talking, and, later, in learning to read and speak normally.

3. The Royal Commission defines an imbecile as "a person who is capable of guarding against common physical dangers, but who is incapable of earning his own living by reason of mental defect existing from birth or from an early age."

4. An idiot is defined as "a person so defective in mind from birth or from an early age that he is unable to guard himself against common physical dangers such as in the case of young children would prevent his parents leaving him alone."

It is thus apparent that between a normal person and an idiot many degrees must necessarily exist, and it therefore becomes the duty of every Medical Officer during the necessarily brief time allowed for an examination at the port of entry to carefully scrutinize every child seeking admission to Canada, and where in any case doubt exists as to its being normal, to detain for careful and systematic examination.

5. Regarding a type termed "Moral Imbeciles," an English specialist says: "I know of no class over whom controversy is so likely to arise or where we may have greater difficulty in forming a diagnosis." Regarding the whole class of the feeble-minded, however, it must be remembered that all authorities agree that while most of them may be inclined towards unsocial conduct, yet only a small proportion of them are really moral defectives.

In order, however, to form a definite idea in regard to cases which are inspected, some systematic method in examination must be followed.

6. With regard to defective children coming under the observation of Medical Officers of the English Board of Education, the examination is systematized by means of a printed card blank on which are entered:

1. The general appearance of the child or person. (a) As to his attitude. (b) As to his gait. (c) As to his facial expression.

2. The condition of bodily growth and general development. (a) As to height. (b) As to weight. (c) As to physical abnormalities:

I. Regarding form of head.

II. Regarding size of head.

III. Regarding expression of face.

IV. Regarding development of mouth, palate, tongue and tonsils.

V. Regarding form of hand, shape and movement of fingers.

VI. Regarding nervous actions, as corrugation of frontal muscles, irregular movement of eyeballs, twitching of eye and facial muscles.

VII. Regarding mental condition, by testing after the child is set at ease so far as possible, by easy questions, as:

(a) Number of brothers and sisters.

(b) By testing ability to pronounce and articulate clearly, and noting readiness in response to questions.

(c) By testing ability to read, count, set down figures (allowance being made for age, opportunities, race, and for word-blindness and word-deafness).

In order to effectively follow these several steps the examiner should be supplied with means for tests, as weighing scales, a standard for taking height, and size as well; a slate, scribbling book, color tests, and printed blanks for filling in details.

7. The following order may well be followed in indicating the more obvious abnormalities of the cranium:

(1) *Microcephalus,* or small-headedness—

Average size at 9 months 17 inches.
Average size at 12 months 18 inches.
Average size at 5 years 20 to 20½ inches.
Average size at 10 years 21 to 22 inches.

This type has usually a narrow, rapidly retreating forehead, pointed vertex and flat occiput.

(2) *Hydrocephalus* has the large protuberant forehead with usually notable mental enfeeblement and often optic neuritis and convulsions due to pressure.

(3) The *hypertrophic head* does not have excess of fluid, but has enlargement of the interstitial brain tissue, resulting in a

rather round or square head with bulging sutures and more or less muscular weakness.

(4) The *Oxycephalic head* or tower skull has commonly protruding eyeballs and lids, almost without supraorbital ridge.

(5) *Mongol or Kalmuc* head is a common type of short oval head with diameters nearly equal, with coarse harsh epidermis, sore eyelids, fissured lips, transversely fissured tongue, almond-shaped eyes, square flat nose, broad hands, short fingers, clumsy square feet, loose joints, often the last child of a large family.

(6) *Cretinism.*—This is usually congenital and especially marked by absence of thyroid gland, dwarfed growth, harsh hair, sallow skin, square nose, misshapen hand, protruding abdomen, forehead wrinkled and long bones shortened, often bowed.

(7) *Simple Congenital Defectives* who show some stigmata of degeneration, as deformed or unevenly developed limbs, exaggerated growth of some parts, as of ear-lobes, contracted mouth or lower jaw, arched palate, two rows of teeth, ears too far back, etc.

Having carefully noted abnormalities of figure and of various physical parts, attention must be given to the mental phenomena by questions and tests in the order already given. There is usually associated with physical defects some mental slowness of response, though at times there is an abnormal loquacity or garrulousness of speech with little sense. The degree of receptiveness of a mental suggestions, as of some simple question, is a safe gauge, allowance being made for nervousness under examination under new and strange conditions.

8. *Epileptics and Inebriates.*—This class both from the hereditary standpoint and their progressive tendency towards a helpless and often dangerous insanity, are, of course, not only most undesirable, but fortunately also their appearance and actions before going on board ship are usually such as should cause them to be detected. The defective inebriate will seldom fail to bear the marks of his habits, and thus if he has taken a passage will be probably readily recognized and rejected. Yet more is this true of the mental defectives who may be deaf and dumb or blind. Their condition is so apparent that with them the addition of mental defects to their physical defects would quite prevent any question of their possible eligibility as immi-

grants to Canada. The mentally *inferior* form a class whose admissibility is very properly a matter for careful consideration. A family of father, mother and healthy children may arrive at a port of entry, and the father or mother may be physically and even mentally infirm. The guarantee of the maintenance of the latter, apart from their harmlessness, is to be found not only in the bond of the son and friends, but especially in the assured ability of the family to maintain their parents and grandparents. The evidence of filial love is the best guarantee that such will be cared for by their children.

9. *Insanity.*—The task of detecting such in the examination at a seaport, except in the most obvious of cases, is by no means a simple one, remembering the brief opportunities for observation, the nervousness and peculiar actions sometimes induced by the unusual circumstances of an official inspection, and the known difficulties which even the most expert have in diagnosing some cases, even after days or weeks of observation in hospitals for the insane. Nevertheless it is essential that every possible care be taken that this class of cases be prevented from landing in Canada. Medical Inspectors are not immediately concerned in any enquiry as to what has brought about certain abnormal mental states, unless in the contingency of the exhaustion induced by continued sea sickness or emotional derangement, as in the case of shipwreck.

The senses are the means by which we obtain knowledge of ourselves and the external world, and the sense organs must function properly to receive correct *internal* or *external* mental impressions and elaborate them into *perceptions.* Hence we must examine persons—

(a) As to the correctness of their perceptions.

(b) As to the insufficiency of their perceptions.

(c) As to their inaccurate perceptions (or illusions).

(d) As to imaginary perceptions (or hallucinations).

(a) Thus, external impressions in states of mental depression or *confusional* insanity, are vague, indistinct and strange; objects and persons have changed and voices and sounds startle the person, while questions put are not understood or answered, or answered only after repetition. The reactions may become so slight as to result in practical paralysis of psycho-activity, end-

ing in dementia. Resulting from these alterations there is a weakening of perception or consciousness as regards—(a) personality, (b) external impressions, (c) exaggeration of personality.

i. Disorders of memory as affecting—(a) reproduction of thought, (b) fixation and conservation of impressions (incoherence), (c) abnormal activity.

ii. Defective association of ideas—(a) diminished intellectual activity, (b) suspension of activity, (c) existence of fixed ideas.

iii. Disorders of affections—(a) diminished affection, (b) exaggerated affection, (c) morbid depression, (d) morbid anger, (e) morbid joy.

iv. Disorder of reactions—(a) paralysis of voluntary reactions; (b) paralysis of automatic reactions (catalepsy); (c) increased automatic reactions.

It is apparent that such disorders must result in an *illusion,* where an object is seen, heard or felt in a form other than its real one: while so unreal are many perceptions depending upon some objective impression, that in effect they create actual hallucinations.

Thus, a bird singing may be taken for a human voice, and the associated idea calls up the image of the person whose voice is heard. A similar hallucination through any of the senses may occur. Hallucinations are usually more marked as the mental disorder is acute and the intellectual activity least enfeebled, lessening as the psychosis subsides or progresses to dementia. Hallucinations may exist alongside sound judgment, but usually there is a disorder of judgment and it is taken for a true perception. Hence as these are often *imperative,* it results that persons with such hallucinations must be looked upon as dangerous. They are usually preceded by other symptoms, as of depression, clouding of consciousness, delusions or intellectual obtuseness.

To diagnose any case some systematic method should be adopted as either by direct questions or simple conversation by which the degree of weakening of the perceptions as to consciousness, memory, association of ideas and affections, may be estimated in the several directions as already indicated. Such common questions as: What is your name? Your age? Where

born? What year is this? What country have you come from? What friends have you? Can you read? Can you write? (asking the patient to do both), serve to measure in some degree the various disorders of perception.

Apart from the psychoses dependent upon infectious disease as delirium, and the mental confusion due to exhaustion, and the various toxic causes as alcoholism, there are several morbid entities, so distinctive as to admit of classification. Thus abnormal mental states, dependent upon developmental defects, as in cretinism, and thyroid disease, will affect the perceptions in some one or several of the particulars already referred to; but there are others generally referred to some one of the following heads:

(1) Primary mental confusion.
(2) Dementia praecox.
(3) General pareses.
(4) Organic dementias.
(5) *Involution* psychoses.
(6) Manic depressive psychoses.
(7) Paranoia.
(8) Psychoses from constitutional neurosis.

10. Dependent upon the exhaustion due to acute diseases, chronic ill-health, and auto-intoxication, etc., there occur a series of mental disorders, including clouding of consciousness, impairment of attention, sluggish association of ideas, insufficiency of perception, constant indecision of will and uncertainty of movements, which taken together constitute a type of insanity only too common. Necessarily, delusions are present, while in delirious conditions, hallucinations and illusions will occur. The persistence of the symptoms will co-exist with the continuance of the constitutional disorder.

11. Classified as an auto-intoxication, the recognition of *dementia praecox* is a matter of the greatest importance, since its occurrence is far more frequent than any other psychosis in immigrants, the greater portion of whom are of ages from 15 to 30, during the earlier years of which period it tends, especially, to appear. It appears with one or more of three well-marked types of symptoms (a) Hebephrenia, (b) Catatonia, (c) Paranoia. It includes especially most of the cases of degeneracy which do not come under the term of imbecile or feeble-minded,

but which seem to illustrate especially the phenomena of mental instability closely associated with the physical stigmata of degeneration. The mental enfeeblement often affects profoundly some one or more faculties, leaving others intact, in this giving a well-defined character to a certain group of psychoses. Thus *first, lucidity* and *orientation* (fixing of personality in time and place) often remains intact, questions being answered rationally and correctly by those appearing indifferent or unconscious of their surroundings. *Second,* the *memory,* may be, and usually is but slightly affected for years; the knowledge acquired in childhood often being well preserved; while actual occurrences impress themselves quite durably upon the memory. However, the capacity of fixation of attention is always diminished, and this defect increases with years. *Third,* the *association of ideas* is sluggish and often incoherent, but the volubility of the maniac is lacking. *Fourth,* the *affections* and *reactions* are always much impaired. *Fifth, indifference* constitutes an early and prominent symptom, the patient is not interested in anything, expresses no desires and makes no complaints. Of course this is unconscious to the patient, though at the beginning explosions of anger, due to irritability, may occur. On the other hand, automatic reactions are exaggerated, as stereotyped movements, grimaces, unprovoked laughter and verbigeration; while disorders of motility, usually of short duration, occur, as convulsions, both hysterical and epileptic and contractures of muscles, may further be associated with these.

Section IV.

Suggestions to Medical Officers Regarding the Inspection of Passengers and the Sanitation of Vessel.

While it is true that modern science has enormously increased the safety and comfort of immigrants while on shipboard, nevertheless it is evident that on the one hand the ever-increasing number of passengers, and on the other the relatively short ocean passage have both tended to encourage the toleration by the steamship companies of conditions both with regard to overcrowding and the unsanitary condition of ships, which formerly often resulted in most serious sickness and heavy loss of life.

These suggestions are made with a view to drawing the attention both of the officers of the steamship companies and of the Medical Inspectors of the Immigration Service to the necessity for increasing care being paid to the various matters hereinafter referred to.

1. The following are the provisions of Section 59 of the Canadian Immigration Act, 1910:

> If any vessels from any port or place outside of Canada comes within the limits of Canada having on board, or having had on board at any time during her voyage:
>
> (a) any greater number of passengers than one adult passenger for every fifteen clear superficial feet on each deck of such vessel, appropriated to the use of such passengers and unoccupied by stores or other goods not being the personal luggage of such passengers, or—
>
> (b) a greater number of persons, including the master and crew, and the cabin passengers, if any, than one for every two tons of the tonnage of such vessel, calculated in the manner used for ascertaining the tonnage of British ships, the master of such vessel shall be liable to a fine not exceeding twenty dollars, and not less than ten dollars for each passenger or person constituting such excess.

2. For the purpose of this section, each person of or above the age of fourteen years shall be deemed an adult, and two persons above the age of one year and under the age of fourteen years shall be reckoned and taken as one adult.

It is apparent that the minimum space of 2 x 7.5 feet of floor space multiplied by the height of the deck, allowed for each passenger, is wholly inadequate for the cleanliness, comfort and health of passengers, and the amount, it is to be supposed, has only been allowed by law on the understanding that this limit may not often be reached, or that, owing to artificial ventilation, the air between the decks will be kept pure through frequent changes. Hence the ship's Medical Officer, in order to comply with the Act, must inform himself, as he readily can, of the cubic air space *per capita* of the decks set apart for immigrants before he receives the passengers on board; and, having learned from the purser the number of immigrants booked, he is then in a

position to inform the master when the legal complement has been reached.

2. The ship's Medical Officer has, however, a further equally important duty, that of making himself fully acquainted with the provisions for ventilating the decks set apart for immigrants. Modern ships commonly have air driven into the holds through the ventilating shafts either by the movement of the ship or by suction fans or blowers; but how many changes of air result therefrom, or how the air is distributed between the decks can only be determined by each Medical Officer in his own particular ship. During pleasant, warm weather the open portholes add greatly to the ventilating of sleeping apartments, but in stormy weather these are closed, passengers are often ill, and in the absence of adequate ventilation the atmosphere, already impure from exhaled air, becomes fetid from emanations from unclean clothes and bodies. The Officer must assure himself that the air during this period is frequently changed, since even in schools of small children the sanitary needs require that each child shall have provided 2,000 cubic feet of fresh air per hour. Hence, on this basis the air of the legal minimum space given above will require to be changed some thirteen times per hour. The steamship companies should, therefore, supply their Medical Officers with a small anemometer or standard air meter, by which to determine at least once during each night the air circulation of the immigrant apartments. In no other way can any accurate knowledge be had, and as the Immigration Act provides for certified bills of health containing such information as the Minister of the Interior deems proper the steamship companies should give this matter their immediate attention. Thus, Section 26 of the Act provides:

> The master shall furnish to the Immigration Officer in charge at the port of entry a bill of health, certified by the Medical Officer of the vessel, such bill of health being in the form and containing such information as is required from time to time under this Act.

3. While the ship's Medical Officer will in most instances doubtless give these matters close attention in order to correctly certify his report, it is equally the duty of the Medical Inspector of the Immigration Service to acquaint himself with the several

points already referred to with regard to the legal air space and ventilation of every ship inspected. While he cannot test the ventilation of the vessel at sea, yet he will by comparison of the indifferent and bad with the good ships soon gain both from observation on the ship and of the health of the immigrants on landing, accurate ideas of what constitutes a sanitary ship. When convinced that a ship is not sanitary it will become his duty to report accordingly, and further as to whether the statements as returned by the Medical Officer of the vessel, as required in the schedule attached to the Act, are correct, and as to whether other requirements of the Act relating to the condition of ships and the health of passengers have been complied with. It is important that Section 34 of the Act, Sub-section 2, be observed both by the Medical Inspectors and the Medical Officer of the ship.*

4. While these terms are very properly applicable to the wash-rooms and closets on the more modern ships, it is only by an extreme euphemism that they can be used in connection with the places and appliances which are found in some of even the regular passenger vessels, but especially in freight vesels temporarily fitted up as immigrant ships. During past seasons, vessels, as cattle ships from Canada, have been fitted up with temporary conveniences for lavatories and latrines so crude and unsanitary as to deserve, if repeated, punishment by the condemnation of the ships and, if necessary, refusal of permission to land the passengers. Movable earthenware, or galvanized basins and closets with bathing appliances, ought to be installed in such freight vessels as the demand for passenger space may, for a voyage or two, force into the immigration service. The rough conveniences referred to seem to indicate such a disregard for the comfort and health of the immigrant that no company ought for a moment to attempt any excuse for their continuance. The needs of the immigrant demand that adequate fresh water or condensed steam be at all times available for the wash

* In a recent investigation on an emigrant ship with a favorable head wind, it was found that with the average 100 cubic feet per capita of air space, an ordinary cylindrical 18-inch duct from the deck gave less than 400 cubic feet per person per hour.

basins, which should be so arranged that no water can remain in them to be used by one person after another. It is equally essential that each immigrant be supplied with an individual towel, and this could very well be in the shape of a yard of cotton sold on shipboard to the immigrant. It would, should some eye contagion be present, be the means of many escaping an infection which has, in some instances, cost immigrants and steamship companies several thousands of dollars for hospital detentions from a single ship.

5. Assuming that the ship's Medical Officer has guarded against overcrowding, it becomes his further duty to carefully scrutinize, before their taking passage, all intending passengers, but especially those of the second-class and steerage. This is always possible in a large measure, since such people usually arrive some days or hours before embarking, and have to pass the Board of Trade examination. It is apparent that, however exact this may be, the interests of a steamship company demand that its own Medical Officer assure himself that no immigrant is allowed to go on board whom he thinks to be an undesirable immigrant, or who is likely to be prevented from landing in Canada. He is guided in this matter very exactly by the provisions of Section 3 of the Act (1910), Sub-section (a), (b), (c).

Thus the feeble-minded, the idiotic, the epileptic or insane are absolutely precluded from landing; while no deaf and dumb, or dumb, or blind or infirm person can be landed unless one of a family, or going to his family. The term *infirm,* in addition to physical weakness and old age, especially applies to persons crippled, who lack an arm or a leg, or an eye, or are so deformed that it is improbable that they can earn their living in Canada. While persons suffering from acute contagions are of course prevented from taking passage, it is apparent that persons suffering from such diseases as tuberculosis in its varied forms, chronic skin diseases as favus, or the yet more common eye disease, trachoma, are not to be permitted to take passage, since if curable, it is better that they should receive treatment before embarkation than run the risk of rejection on arrival in Canada.

Should it happen, however, that excludable cases have embarked it is apparent that the ship's Medical Officer, assiduous in his duties, will soon have become cognizant of their presence on shipboard. What the legal duties of such an officer and of the

master of the vessel are, may be gathered from the following Section 78 of the Immigration Act, 1910:

Every person who violates any provision of this Act, or of any Order-in-Council, proclamation or regulation thereunder in respect of which violation no other penalty is provided by this Act, shall incur a penalty not exceeding one hundred dollars.

It is apparent that the Medical Inspectors of the Immigration Service have placed upon them very serious responsibilities in the matter of enforcing the terms of the Act. They must realize the full meaning of these sections and not hesitate to report to the Immigration Agent of the port any violation of the Act by the Medical Officer or master of a vessel.

CANCER OF THE TONGUE BASED UPON THE STUDY OF ONE HUNDRED CASES

By Joseph C. Bloodgood, Baltimore.

This study has led to some very remarkable conclusions.

It has been demonstrated that the failure to cure when cancer of the tongue is fully developed is due chiefly to the neglect to remove the muscles of the floor of the mouth below the cancer.

The high mortality after operations for cancer of the tongue is chiefly due to the removal of the floor of the mouth without removing at the same time a section of the lower jaw.

The investigation has also shown that if a lesion of the tongue is subjected to immediate operation within a few weeks after the onset of the lesion, the chances of a permanent cure are best. In this stage it will usually be sufficient to remove the local lesion with a good margin of healthy tissue, and this removal should be accomplished with the electric cautery. The centre of the lesion should be preserved for microscopic study. When this is done the chances are that the lesion will still be benign. But even though the lesion prove microscopically cancer the probabilities of a cure are almost 100 per cent.

* Author's abstract of paper delivered before the American Surgical Association, New York, 1914.

In the past the surgeons have apparently performed too extensive operations upon the glands of the neck. Now, this is theoretically incorrect, because cancer of the tongue infiltrates into the glands of the neck through the floor of the mouth. Should the glands be involved and the floor of the mouth not removed, one could hope for little, if anything, from such an operation. If the glands of the neck are not involved, this does not preclude infiltration of the floor of the mouth.

When the operation is performed in one stage, it is impossible to remove the tongue, the floor of the mouth, the glands, and then close the opening in the mouth unless a section of the lower jaw is also removed. If the former operation is done thoroughly the mortality is very high—almost 80 per cent.—from primary or secondary pneumonia, or late infection from the oral fistula.

The author was first impressed with these facts when it was found that the first cured cases were either cancers originating in the floor of the mouth, or cancers of the tongue invading the floor of the mouth, in which it was absolutely necessary to resect portions of the lower jaw in order to remove the disease. The extent of the disease, therefore, forced the surgeon to more radical and mutilating procedure and allowed him to perform removal *en bloc.* During the same period earlier and more favorable cases were subjected to less extensive operations. When the floor of the mouth was not removed, local recurrence always followed, and when it was thoroughly removed the patients died from the operation.

In November, 1910, the author for the first time, in a favorable early cancer of the tongue, removed the right half of the tongue, the right floor of the mouth, the right half of the jaw and the glands on the right side of the neck, all in one piece. The wound was closed by suturing the mucous membrane of the right cheek to the remaining half of the tongue. The patient was able to swallow at once after operation, and no recurrence followed. The microscopic study showed that the floor of the mouth was infiltrated, but the glands were not.

As the removal of the lower jaw, especially at the symphysis, is mutilating, the author has attempted to accomplish the same results in a different way.

The glands of the neck are first removed and, after the operation, their connection with the floor of the mouth below the lesion is thoroughly burned with the cautery and the wound closed. Then the lesion in the tongue or floor of the mouth is attacked with the electric cautery. The application of this is usually repeated two or more times, until everything is destroyed down to the area of the first cauterization from below. The healed skin flap of the first operation forms the floor of the mouth and prevents an oral fistula.

The first operation after this method was performed in April, 1912—two years ago. The lesion was a cancer occupying the floor of the mouth between the tongue and the symphysis of the jaw. It was about the size of a silver dollar. Permanent cures have been accomplished in similar cases by *en-bloc* dissection of the tongue, floor of mouth, jaw and glands. The oldest case thus treated lived fifteen years, but the operation is very mutilating, and recently a patient refused to submit to it. This led the author to attempt what he had had in mind for some years. At the present writing—two years since operation—there is no evidence of recurrence and no mutilation.

Since then four cases have received this treatment with, so far, apparent success.

The majority of cases of cancer of the tongue seek surgical aid at an unnecessarily late period. In every case the patient is warned—there is always something to be seen and felt in the tongue or floor of the mouth. If such a lesion is investigated at once, a local operation with the electric cautery should be sufficient; in a later stage removal of the glands and repeated cauterizations of the mouth lesion; in still later stages resection of the jaw must be done. The author's recent experience seems to show that this operation should be done in stages; first, thorough removal of the glands with cauterization of the floor of the mouth from the neck wound; second, cauterization of the lesion within the mouth; third, removal of the lower jaw and cauterized area. These points will be discussed in detail with illustrative cases in the completed paper.

When the cases observed up until 1908—a period of eighteen years—are compared with those of the past five years,

the influence of education is well shown. The very early precancerous lesions have increased from 8 to 30 per cent. The late and inoperable cases have decreased from 18 to 10 per cent. The cures have increased from 21 to 50 per cent.

When the author considers the cases (fourteen in all) personally operated on by him by these new methods in the past five years, he finds that there has been no post-operative mortality, and so far but one patient is dead of recurrent carcinoma. In this case the lesion on the tongue had previously been subjected to operation, the recurrent tumor was extensive, and the glands of the neck involved.

In this group of cases every type of operation according to the newer methods just described is represented. At the present time there is evidence of recurrence in only one case; here, too, the lesion was most extensive and the operation most radical.

The experience with these fourteen cases proves the point as far as the immediate mortality is concerned, because considering all the cases studied, the post-operative mortality has been about 22 per cent. Since recurrence as a rule takes place within one year of the operation, the results of the author's fourteen cases also demonstrate that the improved methods promise a much larger per cent. of permanent cures, and certainly a longer freedom from recurrence.

We have, therefore, apparently conquered the technique of operations for cancer of the tongue. Now, if we can educate men to come earlier, we shall probably conquer the disease.

DOC RAMAGE'S PRESCRIPTION

By C. M. Ramage, M.D., Fairmont, West Va.

Will Morgan came into the office grinning and said, "Doc, they started to-day. Let's join 'em at Cairo."

It made me mad for him to come in that way because I couldn't leave my practice. When a doctor goes away he comes back to find all his patients surprisingly well—and the patients sometimes get to figuring that two and two make four!

Bill was referring to a bunch of jolly dogs who were going in a boat from West Virginia all the way to the Gulf of Mexico shooting holes in the atmosphere. We were both invited. I turned Bill's proposition down and worked all day. When I got home, I kicked the cat, growled about the dinner and made myself a general nuisance.

Next day Bill came in and said, "Doc, we can catch them at Memphis and be in on the Bougere deer-hunt."

"Nix!" I said, and thought I meant it.

Two evenings later, when I had been handing out medicine and advice all day, I says to myself:

"Doc, you ain't looking well!"

"Sure!" I snarled, "I know I ain't lookin,' 'cause I ain't feelin' well."

"Well, then," says I, "why don't you take some medicine?"

"Darn medicine! It's hard enough on a well man—let alone a sick man—and I'm sick."

"Why you give it to sick folks, Doc!"

"Well, I got to give 'em something if I take their money, don't I? You talk about as intelligently as a lop-eared hybrid!"

"Well," says I to myself, not wanting to quarrel, "suggest something."

"Will you do what I say?"

"Sure!" says I. "Hope I may die!"

So I wrote a prescription for myself which said:

℞

Take a hunting trip with Bill.

"Bully!" says I. "Doc, you sure are the goods! Darned if I don't go!"

So Bill and I grabbed our guns, caught the train and started after the boat party. We caught them at Vicksburg, tuning up the engine for a fresh start, and we were royally welcomed.

We boomed along down the Father of Rivers, stopping at favorable looking points to shoot ducks and geese, or to take a little run in the swamps after deer. On the Mississippi side John got a measly little deer which we ate up in three days! In a very short time the good ship *Shirley* was drawing two inches more water from the fat we were putting on. At night we loosed our two coon dogs and sat gabbling around the fire in the cabin until they treed a coon or 'possum—as they invariably

did within a quarter of a mile of the boat! One evening we killed nine big grey geese, nearly all young ones, and we nearly foundered the next day.

At Natchez and other points we fought the Civil War over again, six to five, with losses about equal. And we had yelling matches over the velocity of a round bullet fired straight up on a still day, on its return! One side said its penetration on its return would be exactly what it was at the point going up! Another argument producer was Roosevelt's name. But we were getting foolish we were so happy! Fellow would tell an old moth-eaten joke like the one about the Irishman, the Jew and the Dutchman going to see the Pope, and we would laugh for half an hour! Someone would say "Why does the hen cross the road?" and we would laugh so hard the engine would miss fire.

But we had not seen much big game. We were all looking forward to Bougere, Louisiana, where the Captain said there would be plenty of deer near the river.

"They say the deer about Bougere are thicker than fleas on a dog's back!" said the Colonel gleefully to me as we sped along.

"I doubt it!" said I, for I had heard so many times of those wonderful game centres and gone to them, only to return with nothing dead except my practice.

"Geese!" yelled the lookout; and we got our rifles and opened on them at eight hundred yards as they sat in a bunch on the water. Forty steel-jacketed bullets netted one goose. We picked him up and went on.

Said Jack, "They say there's scads of deer at Bougere!"

"We won't see any!" I averred.

Finally we landed at Bougere and excitedly made preparations for the next day's hunt.

Now, I have hunted mainly in the West Virginia mountains and in Texas—dry ground—and had firm ideas on the value of pig-skin puttees and light shoes for comfortable footgear. Sure! I know it! I am the dyed-in-the-wool tenderfoot, the hopeless, chronic kind.

We started long before daylight, our hunting-ground being three miles away. For a mile I skipped along behind Ben who had been there before.

"Little water here," sang out Ben cheerfully, and plunged into ten inches of ice cold water. I hesitated only a moment and followed. We waded for a mile in that sea and then the water deepened to fourteen inches! My villainous companion had on twenty-two inch Witchelk boots carefully viscolized the night before, and he strode along whistling "Annie Laurie," while I, with my soppy leggings and freezing feet decided not to shoot him in the back but rather to cut his throat—it would give me more satisfaction.

Finally, when I was about all in, we floundered onto the railroad track and I squ-u-ched along as miserable and hopeless as a prohibition candidate.

"I'm going to stop here," said Ben.

"I'm going o-on; I-I'll f-f-freeze t-t-to death if I stop!" I chattered.

I moistened the ties for another miserable mile and then disgustedly took to the woods. The great, slimy-looking cypress trees frowned maliciously at me in the ghastly gloom; but day was just breaking and I slushed on through the everlasting swamp. Day came with that magical rush of light that is so surprising to a hill-born man, and with it a little ray of sunshine. Three hundred yards from the railroad I found a spot that was nearly dry and I sat down. Nansen and Perry and the other North Pole hikers will never know what cold is until they brave the rigors of a Louisiana swamp before daylight! Oh, sure! I know! The nigger kids have never seen snow there. But the cold of the dead sea-level atmosphere soaked with water is the most ingeniously penetrating I have ever experienced; and I had on a tenderfoot's footgear.

I debated with myself for some time.

"Am I a fool?" asks I of myself.

"No! You're no fool! You're insane!" says I.

"Well, I'm a fool, too, ain't I?" says I, hopefully.

"Yes, you're a fool that's gone crazy! You're a fool for wearing leggings hunting in a swamp country; and you're crazy for hunting at all when you might be at home in your nice warm office with your feet on the radiator, handing out pills and raking in money."

And just then I looked around.

"Why! That's a deer's head!" says I to myself, focusing my eyes about sixty yards away.

"Pooh! You see a deer! Ain't you hunted for ten years and never seen anything but their impudent rumps? Did you ever even shoot at a deer? Course you never did! Quit your fool trembling!" says I.

"Well, it looks like I thought a deer looked in the face," says I. "If it ain't a deer, what is it?"

"It's a mirage!" says I.

"Is there a closed season on mirages?"

"Of course not, idiot!"

"Well, then," says I, "just you watch me shoot a big old he mirage plumb through!" says I.

"Wait! Wait!" I whispered. "Remember your old pard who shot a Jersey cow—and cost him sixty iron men?"

"Shut up!" says I, taking aim with my old Springfield and pulling the trigger. I did not hear the gun crack, I was so excited; but it obligingly kicked me into wakefulness. Up out of a great tangle of vines leaped a glorious figure that every poet from Homer and Horace down to Kipling has used as the personification of vibrant life; and even as he landed in the open I found myself sneering at the childish attempts of all literature or art to depict the majestic beauty of a full antlered stag, with a background of sullen massive cypress trees and slender cotton woods. As he alighted after his great leap the rifle spoke again; but I must have missed him two feet.

Slowly my fever passed and I came to my senses. There, like a statue, stood the buck looking at me and not more than fifty yards away! I deliberately shot a shell into the barrel and drew a bead on him. As I sighted I remembered that the Springfield, a borrowed one, shot high. I aimed two inches below the forehead and fired. Down he sank gently and rolled on his side with a few spasmodic kicks.

I walked over to him and kicked him tentatively; and I pledge my solemn word that I half expected to kick only the empty air. My soppy shoe landed on warm, palpitating flesh! I had killed a deer! or rather, the God of Little Tenderfeet had sent a despondent deer to me to commit suicide.

I never thought of this in the exultation of the moment! I was a mighty hunter and I pictured myself telling my friends

of how he jumped up two hundred yards away and three bullets had caught him, one in the head, one in the neck and one in the heart! The great cypress swamp became a Paradise of beauty. The soppy ground was a velvet carpet for warmth and softness; and I could not imagine why I had thought it was cold a few moments before!

I took my pretty little Tenderfoot knife and opened his jugular veins and carotid arteries and tried to drag him out of the water to the dry place I had found. Not much! He dressed a hundred and eighty pounds! I counted the points and found them to number ten. "Oh, a ten-tined buckin the bracken lay!" I chortled, and did a dance and other foolish things. It was an hour before I thought of operating on him—and then I think it was rather my surgical instinct than any hunter's sense that prompted the evisceration. I did a complete colectomy, an enterectomy and gastrectomy very neatly.

I was afraid to leave him there and go for help; so I spent the rest of the day running to the railroad track looking for assistance and dashing back to make sure that a wild cat had not dragged my prize away! Late in the evening two negroes, section hands, came along, and I bargained with them to carry in the buck. For a dollar apiece and a pint of whiskey they agreed. I was sorry, but it took the liquor to get them. And so I came triumphantly into camp.

My attitude of peace and good will to all the world was such that when Ben told the bunch how he had taken me through the water that morning I said:

"Bennie, that heavy sweater of mine that you liked—take it!"

"Why, thank you, Doc!" said Bennie. I felt like an old sinful darkey who got religion, was baptized and came out saying, "Is'e so happy dat I could kiss a dog!"

My first bullet had hit the buck high in the shoulder and ranged back, stopping on the spinal cord. A dozen trolley wires could not have given the buck a worse shock. He was partly paralyzed, which accounted for his standing for the second and third shots.

The Northern Louisiana swamp is a wonderful game preserve. There are few spots in the United States so thinly settled by white folks; and these, and the negroes, have an awful

fear of the mocassin and the rattler during the dry months. The wet months, the regular game season, make hunting a sloppy affair. The few deer that are killed do not reduce the herds perceptibly; and the rich grazing, or something, makes them of exceptional size.

During the last great flood in the Mississippi the deer were driven out. Some said that they were drowned; but it takes lots of water to drown a deer. They have not come back yet in their former numbers. They surely will, however. If you ever go there, be sure to have the highest boots you can find. And they must be leather. It gets too warm at mid-day for rubber.

The same day good old Bill got his deer, too, as did two others in the crowd. So as our time was short, Bill and I said good-bye to the bunch and took the train at Angola, Mississippi, across from the mouth of the Red River, for New Orleans.

We had been there before and wanted to see the old city again. After three days' stay we hit the trail north and took up the burden of life where we had laid it down. It was heavy when we laid it down; but light when we again took it up. For Bill and I are alike in that we can take a joyful time home with us! Every time I meet him we live over our good times; and I go home freshly inoculated and vaccinated against the worry germ, the trouble bacterium, the vexation microbe! So Ol' Doc Ramage advises all you grouches, you liver-troubled neurasthenics to fill the following prescription:

℞

Take a hunting trip with Bill.

Dear to the heart of the rifle crank and the hunter of big game is the Outer's Book. Last fall it offered a series of three handsome prizes for the best deer-hunting stories.

Three leather-heels, as seasoned hunters are sometimes called, were appointed to make the awards. They picked out one hundred and ten of the most promising, then narrowed the choice to fifty, and to twenty-five, and, after prolonged effort, to nine. Here they locked horns, and struggled like hockey teams in the final.

Casualties and permanent estrangements were averted by a woman's wit—the youngest stenographer in the office suggesting that they adopt a percentage basis of marks instead of the plan of open voting. So many Canadian doctors are deer hunters, or outers of some other sort, that we have reproduced the winning story with congratulations to our Virginian confrere upon his success. N. A. P.

ONE HUNDRED YEARS AGO

AN ENCYCLOPEDIA OF MEDICINE IN 1813.

In April, 1813, the subscribers to the *Dictionaire des sciences médicales* were reading or glancing over the contents of the fourth volume of that great work. The first volume had appeared in 1812, and the last (sixtieth) did not come until 1822, so that for ten years, at intervals of about two months, the individual parts were being published in Paris and were making their way all over Europe. The publisher was C. L. F. Panckoucke, and how widely the work was being distributed may be learnt from the list of the booksellers given on the page facing the title in each volume. Not only were there firms in Paris and in all the leading towns of France from whom the *Dictionaire* could be obtained, but also in various other countries there were booksellers ready to supply it. Thus there were agencies in Aix-la-Chapelle, Alexandria, Amsterdam, Brussels, Colmar, Florence, Ghent, Geneva, Hamburg, London, Leipzig, Lausanne, Madrid, Maestricht, Mannheim, Milan, Naples, Turin, Warsaw, and Venice; whilst the fact that in Moscow there was a bookshop from which the work could be got must not pass unnoted.

It was a gigantic undertaking. But France had been astonishing the world by several vast enterprises. To the amazement of Europe the troops of the Republic had withstood and got the better of the seasoned armies of Austria and Prussia. In 1812 fighting was still going on in many places; the French forces in the Peninsula were strong enough to hold Wellington at bay, and yet Napoleon was able to lead an army of nearly half a million men into Russia; there seemed to be nothing too great or too hard for the soldiers of either the Republic or the Empire to accomplish. Even the disastrous retreat from Moscow was a gigantic event; Bonaparte had nothing that was mediocre in his affairs; his victories were magnificent and his failures were stupendous.

Now whilst the troops of France were pouring in disorder and defeat across the frozen plains of Russia, French medical men were launching an undertaking which, in its way, was also

huge and impressive. They were beginning to invade Europe with their *Dictionaire des sciences médicales.* When the army of Napoleon was in retreat from Moscow the first volumes of the *Dictionaire* were being issued from the press in Paris, and, astonishing to relate, Messrs. Ricce and Saucet, the booksellers, were apparently receiving orders for the work near by the charred walls of the Kremlin. This medico-literary invasion had a happier result than any of the military achievements of the Emperor, and under the orders of "*une société de mêdecins et de chirurgens*" the *Dictionaire* was destined to carry the evidence of the greatness of French medicine to the most remote corners of Europe. It is also no small honor to their country that the doctors made no retreat during all these tempestuous times, but continued to send forth, even during the Hundred Days before Waterloo, the bimestrial volumes of their *Dictionaire.*

They are not small books, these bi-monthly volumes. The one which was being read in April, 1813, contained 572 pages, and carried the alphabetical rubrics from *Can* to *Cha;* it was the fourth, and there were to be fifty-six more of that size before "Fin" could be printed. Neither were the writers small men, although there may be some justification for the criticism offered by the *Journal de bibliographie médicale* for April, 1813, that they were all of one school. Seventy-five names appear on the title-page, and amongst them are to be found Alibert, Bayle, Breschet, Cadet de Gassicourt, Chaussier, Cloquet, Coste, Cuvier, Dubois, Fournier, Gall, Geoffroy, Kergaradec, Laennec, Larrey, Pelletan, Pinel, Royer-Collard, Spurzheim, and Tollard—all of them men who had made or were making a reputation.

Our English word "dictionary" does not at all convey the idea worked out in this set of sixty volumes. "Encyclopedia" comes nearer to it, "encyclopedia and dictionary" nearest of all, perhaps. There are long articles, such as one meets with in modern encyclopedias; but between these there are also short ones, which may be, and in many cases are, hardly more than definitions. There are illustrations, but they are not numerous: there are two in the fourth volume, there is one in the third, and four each in the first and second volumes. It need hardly be said that in the early part of the nineteenth century illustrations were much more expensive than now, and, for the time, one may

call the work well supplied. The articles are all signed, and some of them are provided with good bibliographies.

Some idea may be gained of the matters dealt with in this work from a simple enumeration of the headings in the first fifty pages of the fourth volume. The first article is on *canelle* (cinnamon), with a short separate note on *canelle blanche.* Then follows a paragraph on *canepin* (*lambskin*), and an interesting note on *canicule et jours caniculaires* (Sirius and the dog days), in which Hippocrates and Aristotle are quoted. *Canin* (canine) is referred to in its various medical combinations, such as *faim canin* (canine hunger), "une faim tres-considerable et que rien ne peut apaiser"; *dents canines* (canine teeth); *fosse canine* (canine fossa), and *muscle canin* (commonly called "risorius muscle" by the anatomists of to-day).

THE CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA, LONDON, ENGLAND

An attractive exhibit was arranged by Burroughs Wellcome & Co. in the Hotel Cecil on the occasion of the above Congress. Among the products shown were many of peculiar interest to those who are interested in the application of modern scientific research to manufacturing processes. The world's laboratory workers have, for instance, discovered for us the active principle of the supra-renal gland. Burroughs Wellcome & Co. by investigations in their own laboratories have been enabled to supply to surgeons a synthetic preparation which, whilst resembling adrenine in all its valuable therapeutic properties, possesses undoubted advantages over the natural substance. This product—known as "Epinine"—is typical of others, the introduction of which has been due to scientific research.

Of the many fine preparations on view there is little space here to give detailed description. "Vaporole Infundin" is a physiologically-standardized pituitary extract which is undoubtedly reliable and safe for use in emergencies. The "Tabloid" Adjustable Head Dressing, compressed into waistcoat pocket size, will commend itself to surgeons, not only on account of its simplicity of application—it takes but a few seconds to fit on a patient—but also for its utility as a headgear for surgical operators and their assistants.

The Physician's Library

Acute Abdominal Diseases. Including Abdominal Injuries and the complications of External Hernia. By Joseph E. Adams, M.B., M.S., London, F.R.C.S., Eng., Senior Assistant Surgeon East London Hospital for Children, Hunterian Professor Royal College of Surgeons of England, Demonstrator of Anatomy St. Thomas Hospital Medical School, and Maurice A. Cassidy, M.A., M.D., B.C., Cantab., F.R.C.P., London, Physician with charge of Outpatients St. Thomas Hospital, Honorary Physician The Putney Hospital. Toronto: J. F. Hartz. 1913.

At a time when abdominal diseases seem to attract more attention than they used, this book comes to fill a requirement that many have felt, with few opportunities to satisfy. It is a decided advance in this subject, and may safely be used as a book of reference. It is well written, of good type, and gives in a very reasonable space the best description and good sound advice. It has many things in it that seem to be quite new, and will be found to contain both the medical and surgical information required. A. J. J.

Insurance Medicine. Being Suggestions to Medical Examiners by Henry H. Schroeder, M.D., Medical Director Mutual Life Insurance Company of New York, Editor Insurance Department *Medical Record.* Reprinted from the *Medical Record.* New York: William Wood & Co. 1913.

This is a compilation of articles which appeared during the last two years in the *Medical Record,* under the heading of "Suggestions to Medical Examiners," and will be received by every medical examiner for a Life Insurance Company as being a book which contains the results of twenty years' of experience of an examiner, and, latterly, medical director of one

of the largest American companies. There are many duties peculiar to the medical examiner which this book thoroughly explains. It is essentially a practical book, and hence a book of reference that is available at a moment's notice. In many of the articles the writer shows how carefully he has followed the discussions which took place from time to time before the Association of Medical Directors, and how thoroughly he weighs the evidence of the various speakers. Dr. Schroeder's name is of itself sufficient guarantee of the value of everything that this book contains. Every medical examiner can study this work and feel that he has gained something by so doing.

A. J. J.

The Practical Medicine Series. Comprising ten volumes of the year's progress in medicine and surgery, under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology Chicago Post-Graduate Medical School; Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Vol. I., General Medicine, edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago; and J. H. Salisbury, A.M., M.D., Professor of Medicine Chicago Clinical School. Series 1913. Chicago: The Year Book Publishers, 180 N. Dearborn Street.

This book comes to us full of the latest information on all subjects of interest to a medical man. A very large portion of it is devoted to tuberculosis and diseases of the circulatory organs; diseases of the blood and blood-making organs, diseases of the ductless glands, together with diseases of metabolism and diseases of the kidney, making up the balance. The index is perfect and the references are very numerous to recent journals. It is concise and easily read, and, for its size, contains the largest possible amount of information. It is not too scientific, and yet scientific enough for the general practitioner and student thoroughly to benefit by its perusal. Like all this series it is a book that every man should keep upon his shelves if he wishes to keep up to date. A. J. J.

Pediatrics and Orthopedic Surgery. Practical Medicine Series, 1912. Aht and Ridlon. The Year Book Publishers.

This little book contains a review of all the principal papers published during the year. The section on pediatrics is a faithful synopsis of these papers, with valuable notes by the editor which point out wherein these papers present ideas differing materially from the general opinion. The reviews of the work which is being done in the experimental production of the acute infectious fevers and in the diagnosis of syphilis are worthy of special mention.

The section on orthopedic surgery is also a good review of the current literature, but it is open to the same criticism as in former years, that the editor occupies too much space in discussing his own views on the subject under review. The book can be recommended to those who have not access to a considerable selection of journals. W. E. G.

The Problem: The Autobiography of a Physician. By Charles Percy, B.Sc., M.D. "*Credo quae de inferis dicuntur falsa existimas.*"—Cato. The Shakespeare Press, 114-116 East 28th Street, New York, 1913.

The author tells of his life-long thirst for knowledge and his persistent questionings of nature to discover her secrets and solve the problems of life.

He describes his experiments, first on animals and then on the human body, until the story becomes as weird as the horrors of Rue Morgue. Should climatic conditions or the eternal vigilance of the health department bring an idle hour, we can recommend this little autobiography. W. J. W.

Infantile Paralysis, with Modern Methods of Treatment. By Henry W. Frauenthal, A.C., M.D., and Jacolin Van Vliet Manning, M.C. F. A. Davis Company, Publishers, Philadelphia, Pa.

The extensive and numerous epidemics of infantile paralysis which have occurred in the last decade, leaving behind many thousands of cripples, afford both the reason and the material for the publication of the results of study and practice, having

in mind the securing of means which may be employed for their relief. Previous to this decade the literature of the subject was comparatively scanty. The knowledge of the exact pathology and pathogeny, of exact anatomical distribution, and the means of treatment at our command, have received during this period great and important additions. In accordance with its name the disease was commonly supposed to be limited to the spinal chord; now it is known to attack both the brain and the nerves. It was commonly taught that it was due ta a chill; now it is known to result from a specific virus. The remedial means at our disposal were chiefly mechanical; now the resources of operative surgery and the advantages of muscle training have added immensely to our power to help.

This book is a storehouse of valuable information, gathered chiefly from European sources. It is needlessly copious in the chapters on history, etiology and pathology. The chapters on diagnosis are full and will be of the greatest value.

The portion dealing with treatment is meagre in many important particulars and lessened in value by some glaring errors.

In general it may fairly be said that the book is a convenient storehouse affording the general practitioner much real information on this now highly important subject. B. E. M.

The Practice of Surgery. By Russell Howard, M.S. (Lond.), F.R.C.S. (Eng.), Surgeon Poplar Hospital; Assistant Surgeon, London Hospital; Joint Lecturer on Surgery and Teacher of Operative Surgery, London Hospital Medical College; author of "Surgical Nursing," "The House Surgeon's Vade Mecum," etc. With 8 colored plates and 528 illustrations in the text. Edward Arnold, London, 1914.

Text-books on surgery we suppose will continue to be written and copied for all time to come. The one before us begins with a chapter on "Infection, immunity and serum therapy"; then comes the good old chapter on "Inflammation."

It is creditable that in a text-book on surgery the methods of diagnosis should receive so much attention. Too much stress cannot be placed upon this aspect of surgery, in this all too-prevalent age of "operate and see."

It is also a relief to find the chapter on "Amputations" and on the "Ligation of vessels" eliminated from this modern text-book.

The chapter on "Fractures" might well be improved by relegating the various forms of "splints" illustrated, to a monograph on the ancient history of the treatment of fractures, where they more properly belong.

Like practically all British text-books, it is well written. A student as well as a young practitioner will find it much to his advantage to peruse the pages. F. N. G. S.

The Growth of Bone. Observations on Osteogenesis. By William Macewen, F.R.S. Glasgow. James Maclehose & Sons. Toronto: The Macmillan Company.

This is a work to set a surgeon thinking. Ever since Duhamel in 1739 advanced the idea that bone grew from periosteum as wood grows from the inner bark of a tree the profession has looked upon the preservation of that membrane as a most pressing obligation.

Vischon in 1858 affirmed that bone cells arise from periosteum.

Macewen away back in 1887 demonstrated that bone regeneration in human fractures could take place without the aid of the periosteum.

Why have we accepted the common belief that the periosteum is an exception to a general law?

We know that all tissues are developed from cells of the same tissue. The periosteum is a connective-tissue membrane and should produce connective-tissue cells, not bone cells.

Sir William in this work definitely proves that the periosteum in normal adult bone is a limiting membrane, pure and simple. In growing bone, as well as in that which is irritated, it gives sufficient framework for new bone.

He has taught us that we are under no obligation to show a greater respect to the periosteum in the course of an operation than we do to any other tissue. It is not at all an essential element in the healing of bone. Bone chips and splinters, on the contrary, are of the utmost value, and their consideration is an important part of the surgeon's duty.

No one interested in bone surgery can afford to disregard this book, which is one in every way worthy of the great Scottish surgeon whose name adorns its title page. W. A. P.

Nervous and Mental Diseases. Being Vol. X. of The Practical Medicine Series of 1913. Edited by Hugh T. Patrick, M.D., Professor of Neurology in the Chicago Policlinic, Clinical Professor of Nervous Diseases in the Northwestern University Medical School, ex-President Chicago Neurological Society, and Peter Bassoe, M.D., Assistant Professor of Nervous and Mental Diseases, Rush Medical College, Chicago. The Year Book Publishers, 327 S. La Salle St.

This little book of 250 pages contains many excellent critical reviews by well-known and authentic writers on modern nervous and mental diseases, and the views presented represent the latest ascertained facts on the subjects under discussion.

Under the section on Diseases of the Nervous System there are interesting chapters on Symptomatology, The Neuroses, including Psycho-Analysis, Diseases of the Brain and Meninges embracing Cerebral Localization, Diseases of the Spinal Cord, Diseases of the Peripheral and Spinal Nerves and the Sympathetic Nervous System.

Under the section on Mental Diseases there are short but valuable discussions on Manic Depressive Insanity, Dementia Praecox, Paranoic Conditions, Paretic Dementia and Traumatic Insanity. There are also suggestive observations on Heredity and Insanity, Insanity Among the Indians, on Social Service and the care of the Insane.

Altogether there is much valuable information for the general practitioner and also for the special student in this little volume, and the selections made from a very wide field of recent medical literature compel the reader to admire the ripe discrimination of the authors. N. H. B.

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The Canadian Journal of Medicine and Surgery

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Editorials

PATRIOTISM IN THE ACADEMY OF MEDICINE, TORONTO

In order to prove beyond question that the Fellows of the Academy of Medicine, Toronto, desire to bear their share of the burden in connection with the Patriotic Fund, President H. B. Anderson called a special meeting of the Council on Monday, August 24th. There was no difficulty whatever in securing a quorum and, after a full discussion, it was moved by Dr. W. H. B. Aikins and seconded by Dr. W. A. Young, and unanimously carried:

(1) That the Council of the Toronto Academy of Medicine, speaking for the whole membership, respectfully recommends as a patriotic duty that the Fellows of the Academy undertake without charge the professional care of the needy dependents of any men serving with the Allied Armies during the war now going on.

(2) That this service be understood as supplementing the ordinary agencies for the medical care of the sick poor.

(3) That the Council ventures to express the hope that some similar action may be taken by the profession as a whole through-

out the country, thus following the example set by the profession throughout the Mother Country.

(4) That Dr. J. T. Fotheringham act as Chairman of a special committee *ad hoc* and represent the Council of the Academy, with power to select a committee.

Moved by Dr. J. T. Fotheringham, seconded by Dr. Harley Smith, that the Council recommend to the Academy that the Past Presidents of the Academy constitute a special committee for the purpose of arranging that, in the absence of arrangements already made by any medical officers who are on active service, their private practices shall be cared for, the moneys collected turned over to their families or to themselves on their return, and their professional interests in general protected.

Moved by Dr. N. A. Powell, seconded by Dr. D. McGillivray, that the corporate influence of the Academy as well as the individual efforts of its members be expected to consider, as far as possible, the interests of those of our medical colleagues who may be called to active service and who are holders of hospital or other appointments.

The President wisely preferred, before taking further action on the recommendation of the Council, to call a special meeting of the whole Academy to secure their indorsement. This was held on August 27th, when there was a splendid attendance. The recommendation, as made by the Council, was unanimously carried, including a resolution that the Academy subscribe $1,000 to the fund.

We would like to heartily support the action of the Academy in this connection, feeling that it is only loyal that such a body should recognize the objects of the Patriotic Committee, who, we are glad to learn, expect, without any difficulty, to overreach the million dollar mark.

THE MAN OF THE HOUR

Out of every great struggle of life, when the darkest hour has passed, some human figures stand out alone. They are the little human gods we pin our faith to, and in the afterglow when the cloud has lifted the memories that linger go down to history.

Loyalty and honor just now seem to compel Canada to take her part in the great Crime of the Centuries, but fortunately we Canadians can offer to the Honorable Minister of Militia the tribute of admiration, used in describing one of England's best (who lived when the world was younger), he had the three greatest attributes "Fortitude, Valor and Decision." The Honorable Sam Hughes is not mistaking ignorance for courage, nor hysteria for loyalty. To Canadians, he stands out, not only as the man of the minute, but of the hour.

It seems to the medical men who have to think so often of the future race of this country that the Man at Valcartier must have thought also and deeply of the condition of this land, with its unfit left behind and its struggle against the White Plague, and how carefully in the weeding out process he keeps his brains "packed in ice," as they say of Kitchener, and tries to save many a fine, loyal young man, but a very unfit little toy soldier, from certain death.

The Minister of Militia has shown that he knows not only war, but the loyalty in the hearts of Canadian women (for are they not his dearest own), he may well be trusted to know when Jack Canuck is fit, and when his pluck and his grin are needed to cheer things up a little at the front. May Jack's be at least

the paw of the old Lion whose whack will mar the smile of "Papa Wilhelm."

WHY NOT A CANADIAN STAFF?

A FEW weeks ago we were thrilled at the success met with by those noble women in Toronto and elsewhere who, in but one day, collected a very large sum of money for a Hospital Ship to be presented to the Mother Country from Canadian womanhood. We understand now that the money is to be used in aid of a Naval Hospital at Portsmouth, England, to be known as "The Canadian Women's Hospital." We trust that by the time this issue of the Journal appears it will have been arranged to man the hospital with a Canadian staff throughout, including a Canadian Superintendent and a staff of Canadian doctors and nurses, than whom none better could be found. We offer this suggestion to those who have charge of the matter.

THE LOYALTY OF FRIENDSHIP

ONE of the most appreciated and generous offers of assistance for the relief of those left at home in Toronto, when the soldier of the family has been called to the Colors, is that of the American born citizens of Toronto. As individuals they have been giving and working with a splendid spirit and a generosity that can never be forgotten. One form of their gift to the Patriotic Association Fund was a Musical Festival in the Arena on September the tenth, all expenses being borne by the American citizens, and every cent of the proceeds turned into helpfulness. In every possible

way have the American residents shown the deepest and truest friendship—a friendship that means much to those who have gone to the front and much to those who remain.

Woodrow Wilson, President of the United States, is above criticism; he has earned the love of his people and the respect, admiration and confidence of those who dwell under the same roof with him—the America we share. May he through stress and storm, "having done all things, stand"—the first in Peace —whose "echoes shall roll from soul to soul and grow forever and forever."

"THEIR'S NOT TO REASON WHY"

THE mobilization of an active service force in Canada has been the occasion of a striking exhibition of public spirit on the part of the profession both in Toronto and throughout the country.

This is seen more especially in the West and in Ontario. I have been myself the recipient of nearly sixty letters, telegrams and night messages from men at work in Northern Ontario, Northern Manitoba, and the West, as far as Fort George, B.C., urgently offering for the front, and ready to go, many of them, without commissions.

Divisional headquarters very properly imposes restrictions upon the publication of details, so that one may state only that the medical units of Toronto are up to war strength, and that there has been a camp near Toronto of about 700 officers and men of the Army Medical Corps alone.

J. T. F.

Canadian Journal of Medicine and Surgery

Editors

Surgery:

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Original Contributions

THE MODERN WARFARE AGAINST TUBERCULOSIS AS A DISEASE OF THE MASSES *

BY S. ADOLPHUS KNOPF, M.D., NEW YORK AND PARIS,

Professor of Medicine, Department of Phthisiotherapy, at the New York Post-Graduate Medical School and Hospital; Visiting Physician to Riverside Hospital-Sanatorium; Consultant to White Mountain and Gabriels Sanatoria; Honorary President of the Medical Board of Bruchesi Tuberculosis Institute, Montreal, Canada.

Your Worship the Mayor, Sir James Grant, Nestor of the Canadian Medical Profession, Mr. President, Members of the Canadian Association for the Prevention of Tuberculosis, Ladies and Gentlemen:

I have been called from far away New York to address this distinguished gathering, and I wish you all to understand how truly grateful I am for the honor which you have thus conferred upon me. It has been my privilege before this to address Canadian audiences composed of medical and laymen, interested in tuberculosis, and I have always felt grateful for the inspiration I have received from these gatherings. I gladly accepted the honoring call to be with you again, and I know full well that I shall receive more than I can give you.

It is with regret that I must preface my remarks by saying that there is virtually nothing new in tuberculosis, that there is nothing with which you brave physicians who are practising among the tuberculous or you noble men and women who are devoting your lives to the combat of the social side of this disease are not already familiar. The best I can offer is perhaps a somewhat detailed account of the modern aspect of the various

*Address delivered by invitation, before the fourteenth annual meeting of the Canadian Association for the Prevention of Tuberculosis, at Halifax, N.S., July 13, 1914.

phases which present themselves to the workers in the battlefield against our common enemy—the great white plague.

I have entitled my modest contribution "The Modern Warfare Against Tuberculosis as a Disease of the Masses," and I hope you will bear with me if I fall short of the mark in my endeavor to give you if nothing new at least something which might be worth while reiterating and to which you might be willing to give thought and consideration.

Our views on combating the disease due to the tubercle bacillus from a preventive as well as a curative point of view, have changed considerably in latter times. Although there have apparently been no great strides made in very recent years concerning the knowledge of the pathology and bacteriology of tuberculosis, our present day method of warfare against this disease of the masses differs materially from what it was 25 years ago at the time of and shortly after the immortal discovery of the tubercle bacillus by Koch, the father of modern tuberculosis science.

At the present time in our diagnosis of the disease we do not wait for the appearance of the germ in the sputum; we try to get the cases as early as possible, long, long before the sputum shows the presence of the tubercle bacilli. We do not neglect to examine the sputum however and we do this not once but many times, knowing that it often requires several specimens to discover the pathogenic germ. Every time we are called upon to examine a patient, be he married or unmarried, living with his own or somebody else's family, we advise that all the members of the household should subject themselves to examination. The laity as a whole not yet being educated to this point of appreciating preventive medicine may in some instances interpret this recommendation as anything but altruistic, hence it is best that when the physician makes this recommendation he should state that he is not anxious to make these examinations himself as long as they are made by a competent diagnostician.

And how do we proceed nowadays when we examine a patient suspected of tuberculosis? Because of tuberculosis being a disease of the masses, an economic and social as well as a medical disease, we are no longer contented with only asking questions concerning the physical condition of the patient, but we wish to

find out something about his occupation, his former and his present way of earning a livelihood, his family and his social life, the sanitation of his workshop and that of his home, and particularly about where he sleeps and the number of windows in his bedroom.

While of course we are anxious to ascertain something about his possible tuberculosis family history, we pay equal if not even more attention to the personal history. Thus, for example, we will ask him whether he was the first or among the last born in his family, knowing by experience that for physiological as well as for economic reasons the latter born in a large family, particularly among the poor, are more prone to contract tuberculosis than the first born. The parents were older and probably more feeble at the time of the procreation of these latter born, and when they came there were already many mouths to feed. The income seldom increases with the growth of the family and as a result less care, and often less and poorer food for all results from the constant increase in the number.

We pay more attention to exposure to infection than to the probability of a direct heredity, without however denying the possibility of the direct bacillary transmission. Even in children of tuberculous parents we believe more in postnatal than in prenatal infection. The danger and frequency of postnatal infection is realized by all investigators, but my late distinguished teacher, Professor Grancher, of Paris, conceived a unique and practical solution of this difficult problem by placing the children of poor tuberculous parents in healthy and sanitary country homes where they were watched and supervised by specially appointed physicians. This work, which is now carried on by the widow of Prof. Grancher, is known under the beautiful name of "L'oeuvre de préservation de l'enfance contre la tuberculose."

In taking the personal record of the patient we inform ourselves concerning his habits and think much more about an alcoholic and a syphilitic history than we were in the habit of doing in former years, knowing that both of these afflictions are predisposing factors to tuberculosis and must by themselves be counted as diseases of the masses. We search into the symptomatology, past and present, of our patient and determine the

predisposing factors, the well known suspicious precursors of tuberculosis—frequent colds, lassitude, easy tiring, change of disposition, etc. We weigh our patients as we always did and try to estimate his average weight and the loss likely to have been caused by the tuberculous invasion. But nowadays we also bear in mind that underfeeding and bad feeding, in other words, lack of nourishment among the poor may be as much the cause of emaciation and anemia as the tuberculous trouble.

We do not content ourselves with taking the temperature at one time, but take it several times, morning, noon, and night, and if necessary several days in succession, and before and after exercise.

When in a young woman there is a gradual cessation in quantity of the menstrual fluid and she happens to have instead a little pulmonary hemorrhage at that time, we no longer think of vicarious menstruation. We know that in men and women the sanguine expectoration or slight hemorrhages coming from the respiratory tract are in the vast majority of cases the early manifestations of a tuberculous invasion of the lungs. Since the sight of blood usually frightens the patient sufficiently to make him seek medical aid, it often helps towards an early diagnosis, treatment and cure. Hence, small pulmonary hemorrhages or sanguine expectoration should be rather welcomed as warning signals.

The modern phthisiotherapeutist will also never fail to tell all his patients to be prepared for such an event, whether they have had a pulmonary hemorrhage or not, and never to be frightened at the appearance of a little blood in the sputum, but when it happens, to keep quiet, await the arrival of the doctor, and to look upon the sanguine expectoration or hemorrhage as one of the phases of the disease, not by any means lessening the chances of recovery.

Our physical examination of the patient we try to make as thorough as possible. We examine him carefully and completely, including in our search for tuberculosis lesions, eye, ear, nose and throat, and we remember that a dilated pupil may be due to the pressure of a tubercle on the pneumogastric nerve, and that the paleness of the mucous membrane of the upper respiratory

tract may be due to tuberculosis of the lungs. The patient is stripped to the waist, and we inspect the conformation of chest and abdomen and remember that the old idea of a flat chest being typical of tuberculosis is apt to prove erroneous, and that the cylindrical chest with anterior and posterior diameter nearly the same as the lateral corresponds more with the habitus phthisicus.

We palpate for objective fremitus and see if it corresponds with the subjective fremitus. The presence or absence of the latter is determined by requesting the patient to make a humming sound with the mouth closed. He is then asked whether he feels his voice vibrating either on the left or right side, or where he feels the vibration most intensely. If there is a sufficient degree of consolidation on either side, the patient will feel the vibrations caused by his voice and indicate where he feels them.

We palpate and percuss carefully and feel for any muscular rigidity over the inflamed pulmonary area, a relatively new but interesting and valuable sign described by Pottenger. We percuss the chest anteriorly, posteriorly, and in the axilliary region, and do not neglect apical or saddle percussion, that is to say, we saddle with our index finger the entire superior portion of the shoulder, then percuss the anterior and the posterior region of the apex. This saddle or apical percussion, that is to say, the mapping out of Kroenig's band of resonance, is of value in determining the degree of shrinkage of the apices. The apical percussion should be light and should start at about the middle of a line drawn between the mastoid process and the internal clavicular end, percussing the anterior and posterior portion of the apices.

One other newer type of percussion must be mentioned as of value in early diagnosis of pulmonary tuberculosis, that is what is known as tidal percussion. The object of this is to discover the degree of vertical excursion of the lung in the complemental pleural space during the act of inhalation and exhalation. Most accurate information concerning pleuritic adhesions can be obtained with this method by carefully marking the upper boundary of the apex, as indicated by Goldscheider, and then

percussing the lower boundary during inspiration and expiration. At the invaded side the excursion is often limited because of adhesion. The tidal percussion in front is not only exceedingly difficult, but not nearly as valuable as the percussion of the back. When auscultating we do not wait for râles in the chest to make a diagnosis, but when we have a prolonged roughened expiratory murmur localized in one of the apices, we know that in this peculiar respiration we have as nearly a pathognomonic physical sign of tuberculosis as we can have.

To rely for early diagnosis exclusively on an examination of the chest by the X-rays, we would consider unscientific, since shadows may merely mean unresolved pneumonia, a thickened pleura, foreign bodies, pneumonoconiosis, produced by fibrous induration of the lungs due to the irritation caused by the inhalation of dust incident to various occupations, such as coal-mining, knife-grinding, stone-cutting, etc. Yet, after a careful physical examination, it is highly interesting and instructive to be able to corroborate by fluoroscope or X-ray photograph the pathological findings discovered by ear and touch, and I gladly state that when tuberculosis of the lungs manifests itself by small disseminated areas which are difficult to discover by percussion and auscultation, the X-ray picture renders valuable services as a means of diagnosis.

We do not pretend always to be able to make a definite diagnosis, even with our increased knowledge of physical examination and the aid of the X-rays. We resort to all sorts of legitimate tests with tuberculin, and often repeat these tests, and as long as we are in doubt we preach precaution in all cases, be it adult or child.

We are, however, not alarmed if the von Pirquet reaction is positive in an individual above five years of age when no physical symptoms corroborate the diagnosis, for while in children under the age mentioned the von Pirquet reaction is of value because the tuberculous process may not have had the chance to become latent, in older children and adults a von Pirquet reaction means simply that there is a tuberculous focus somewhere in the body (active or latent), and, as already stated, only when corroborated physical symptoms exist has the positive reaction any meaning.

We now know that the vast majority of civilized mankind have at one time or another suffered from an attack of tuberculosis.

This statement has recently been reaffirmed by no less an authority than our great and beloved Osler. I say advisedly "our," because Sir William belongs to us Americans as much as to you Canadians and the people of England. We look upon a light infection of tuberculosis as rather a good than a bad thing, for thus has been created a state of acquired immunity, and only thus can we explain why all mankind is not tuberculous. The evidence for this is seen in the fact that where there is less prevalence of tuberculosis, the relative mortality from it is greater than where there is more tuberculosis in the population, that is to say, where there are many infected individuals the relative mortality is low, where there are few the relative mortality is high.

The wild tribes in various portions of the globe, and on our own continent the Indians, remain free from tuberculosis as long as they live isolated and do not come in contact with so-called civilization. But when they do become infected, their mortality from this disease is unusually high, because they have not had time to acquire immunity, and the course of the disease is usually a much more rapid one than in civilized regions. The apes, which most resemble human beings in their anatomical make-up, almost invariably contract tuberculosis when they are removed from their primeval forests and made to come in contact with human beings. Unfortunately, this naturally acquired immunity is not always lasting or sometimes only partial. Thus far we have not as yet been able to create an artificial immunity by hetero inoculation (injection of serum or vaccine, or other culture products). We must strive, therefore, to strengthen our rising generation in physique and in the general physiological make-up, and thus increase the immunity acquired by a one-time attack of the disease, and secondly, we must seek to discover pulmonary tuberculosis by the earliest possible means, so as to be able to treat the disease in its incipiency and by the best hygienic, dietetic, and therapeutic means at our disposal.

No longer do we think it legitimate to hide the truth from the patient, his family, or friends. We know that if he is tuberculous he must know it in order to get well. We further know that if he does not know the true character of his disease he constitutes

a menace to his fellowmen and is liable to infect any number of people.

We recognize the danger from the careless or ignorant early case who is up and about doing his work, but at the same time is disseminating some seven billion bacilli every 24 hours by careless expectoration. Whenever possible, we see to it that the patient receives the most careful sanatorium treatment in an institution, or if for one reason or another this is not advisable or feasible, we insist that the sanatorium treatment be carried out at home. The same holds good of the advanced case in the well-to-do classes. We realize the great danger from the advanced case as long as he resides in the congested and poor tenement districts, or in an unsanitary home in a village or town, where even with the greatest care it is difficult to prevent infection. We bear in mind that with the advanced case, even if he takes reasonable care of his sputum, there still remains the droplet infection when coughing without expectorating, sneezing, or coughing during sleep. If he lives or sleeps with others in the same room, these droplets of bacilliferous saliva may cause an infection in the non-tuberculous individual because of the prolonged exposure.

We know that the housing problem is most closely allied to the tuberculosis problem. There is enough statistical evidence to show us that tuberculosis is a disease of congestion. The evidence is to be found in the "lung blocks" of our large cities and in the congested cheap lodging houses, in labor camps, prisons, reformatories and schools. The very carefully collected statistics of the great city of Berlin show that 42% of all the cases of tuberculosis occur in families occupying but one room, 40% where they occupy two rooms, 12% where they have three rooms, and 6% where they have four or more rooms.

Congestion is, of course, equally detrimental in workshops, sweat shops, factories, offices, and stores, and the only reason why sufficient attention is not paid to congestion in these localities is the difficulty of obtaining satisfactory statistics.

Dr. Bertram H. Waters, in a recent contribution (*N. Y. Med. Journal*), showed how very frequent tuberculosis is among the garment workers of New York City, the majority of whom work in our crowded and unsanitary sweat shops or so-called factories, located mainly in the tenement house districts.

That tuberculosis is most prevalent among the poor, or, as I may more justly express it, among those who receive low wages, is also too well known to need statistical evidence; however, it is interesting to recall here the well-known statistics of Hamburg, which show that the highest mortality was in those families with a maximum earning of $300 per year, this being three times as high as in families whose income was $1,250, and about four times as high as in families earning $6,000 a year. If such statistics concerning congestion and wage earning would be taken in the United States and Canada, I am sure the fact that tuberculosis is a house disease, one of overcrowding and of low wages, would be amply corroborated.

Thus, for example, in the experience of a single charity society, the New York Association for Improving the Condition of the Poor, it has become very evident that the prevalence of tuberculosis is in the majority of instances the result of insufficient earning on the part of the head of the family.

Thanks to the courtesy of Mr. William H. Matthews, Director of the Department of Family Welfare, I have come into possession of the advance sheet of a report soon to be published, from which I will quote the following: "The low wages of many of the men whose widows and orphans had to be taken care of by the society may well be given as one of the reasons why many of the families were more or less dependent before the husband's death. Again, the result of the low wage, insufficient to supply the food, clothing, and shelter necessary to healthful existence, undoubtedly meant that the bodies of the men, women, and children were exposed to diseases that especially prey on underfed, poorly clothed, and badly housed people. Tuberculosis cut short the lives of 40% of these men." Their minimum wage was $8 and their maximum wage $18 per week.

In the letter accompanying this report, Mr. Matthews says: "Generally speaking, as I read relief case records and go in and out of the homes of our families, I am constantly depressed as I note the amount of poverty and want that comes through the presence of this disease (tuberculosis), and again with the fact that poverty seems responsible for the quick hold which it gets on so many of our families; that is, it appears in terms of both cause and effect, and it is often difficult to determine where the line between the two may be drawn."

Ignorance of how to prevent tuberculosis by care and sanitation completes the trinity of the most important causes of the prevalence of tuberculosis. Where there is no efficient health department, no sanitary control, no enlightened government to provide for the instruction of the masses and for sanitary housing and the careful supervision and treatment of the consumptive poor in sanatoria and hospitals, tuberculosis flourishes to-day as much or more than ever, because our present industrial conditions produce congestion of the masses in cities and towns, and less outdoor life in field and garden.

Alcoholism, that is to say the excessive and injudicious use of alcoholic beverages, is to my mind another strongly predisposing factor to tuberculosis. It not only renders the individual more susceptible to the invasion of the tubercle bacilli, but also makes the cure much more difficult. In my service at the Riverside Hospital-Sanatorium on North Brother Island a large number of patients are alcoholics and the prognosis in such cases is almost invariably unfavorable. I regret to state here that I have had in my service as many as 70 per cent. of tuberculous patients who confessed to the excessive use of alcohol prior to contracting tuberculosis. At Riverside the vast majority of patients come, however, from the poorest of the poor, the most unfortunate of the unfortunate. Hence, let us be just and remember that poverty may be the cause of alcoholism as often as alcoholism is the cause of poverty. The poor will often seek forgetfulness of their misery in the cup. For lack of time I cannot, of course, enter here in a lengthy discussion on this vast and important problem of alcoholism. All I can say is that education, wise legislation, rational temperance movements, better food and better cooking, comfortable and attractive club and assembly rooms for laboring men and women, and popular healthful enjoyments for the masses in general are to my mind the most rational means to combat the alcoholic evil.

The motto which I used for the first time some 15 years ago, in writing a popular essay on tuberculosis for competition, reads as follows: "To combat consumption as a disease of the masses successfully requires the combined action of a wise government, well trained physicians, and an intelligent people."

The wise government of to-day, be it municipal, state, provincial, or federal, realizes that it is of prime importance to do away

with all conditions which predispose the masses to tuberculosis. Hence, good housing laws are enacted and in a few cities they are rigorously enforced. Unfortunately, the value of good and sanitary housing is not sufficiently appreciated in smaller towns and villages where the housing conditions are often as deplorable as in the larger cities. Not until the smaller communities as well as the larger ones awaken to the necessity of proper housing, can we hope for a diminution in the morbidity and mortality from tuberculosis.

A modern government will not only see to it that wise and humane laws are enacted and enforced in factories, workshops, prisons, reformatories, and for the well-being of the workers in factories, shops, or offices, and for the unfortunate prisoners in reformatories, prisons and penal institutions, but above all it will make sure that the child attending school is well-housed, well-clad, and well-fed. We realize to-day the great and inestimable value of the open-air school for the intellectual and physical development of our children. We have learned the value of mid-day luncheons for the children of the poor attending our schools. This luncheon can be provided at the minimum price, and thus pauperizing may be prevented.

Open-air schools have not only cured the tuberculous, the anemic, the predisposed, and the nervous child, but have such a beneficial influence on normal children that the desire and need of them is more than evident. Those of us who are working among the tuberculous of all classes, young or old, venture the statement that if any government wishes to combat tuberculosis successfully, it must pursue the policy to have open-air schools as a rule, particularly for all primary courses; the indoor school must become the exception.

To weed out tuberculosis from our schools we must of course examine and periodically re-examine teachers and all children attending school. We must examine the children of the tuberculous and the non-tuberculous. What is commonly known as scrofulosis we must consider only a milder type of tuberculosis, but also communicable, preventable, and curable, as are the other forms of tuberculosis, and, in the words of the late King Edward, we say, "If a disease is preventable and curable why not prevent and cure it?"

The prognosis of tuberculosis in childhood is particularly favorable, hence we should be particularly eager to discover the tuberculosis in children, which, by the way, is very much more prevalent than we were apt to think in former years.

In some sections of the country as many as 50% of the children of parents attending tuberculosis dispensaries have been found on examination to be afflicted with tuberculosis of various types. We know that children can also contract tuberculosis from others than their parents, as nurses, tuberculous relatives, boarders, and strangers to the household, and we furthermore know that nearly 10% of the children afflicted with tuberculosis have contracted the disease by the ingestion of tuberculous milk, because the bovine type of the bacillus has been found in that percentage. We are as yet uncertain whether or not the bovine type of the bacillus of tuberculosis is transformed in later years into the human type by its new environment, but we do not worry about this uncertainty; we teach, preach, and practice the prevention of tuberculosis in cattle by the enforcement of the tuberculin test and by weeding out the tuberculous cattle and prohibiting the sale of tuberculous meat and milk.

The last and not least important factor to prevent our children from developing tuberculosis is that we must pay more attention to a healthy physique and not carry mental training to such an extent as to hinder the proper physical development of the child in school or the young girl or man in college. All children should be taught the love of fresh air and the value of deep breathing in good, pure air. The simple rules for the prevention of tuberculosis and for general hygiene should be taught the children according to their understanding. They will thus become apostles of sanitary living and of open-air life in their own homes.

(To be continued.)

THE CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA, LONDON, ENGLAND

JOHN HUNTER, M.B., TORONTO.

The experiment of transporting the Congress from the place of its nativity—in America—across the ocean to London was crowned with a halo of success that simply amazed the most optimistic of its members. The courtesy extended to the visitors was most gracious and whole-hearted, and British surgeons gave an exhibition of culture and of skill that challenged the admiration of all who had the privilege and the pleasure of attending the clinics. Every need of the Congress was provided for. The hotels Cecil and Savoy—amongst the largest and most luxurious in the world—furnished adequate accommodation. The evening meetings were held in their "Grand Halls," while in adjacent rooms were the "Registration" tables and a very large and varied display of instruments, books, and proprietary medicines. The address of welcome was given by the Honorary Chairman—Sir Rickman Godlee. The American ambassador—Mr. Page—in very felicitous language, referred to the goodwill existing between Britain and America. In the absence of Dr. Brewer, the retiring President, Dr. Rodman, President of the American Medical Association, extended greetings to the medical profession of Britain.

In a vast multitude of 1,500 or 2,000, it was almost impossible to find out who were present from Canada and the number. On enquiry the writer was told that "All the best men were there." If this information be true, then every reader is in a position to fill out the list for himself as to the names of those who were there, and as to the number of them.

On Monday morning, July 26th, a great crowd "visited" the registration office, and after obtaining a legal status, took possession of the programmes for the hospital clinics. These began in some two or three score hospitals about 9 a.m., and continued, with short intermissions, until 4 or 5 p.m. The operators, as a rule, were on the "shady side of mid-life." They gave the impression of being true surgeons, in contradistinction to being merely expert manipulators of surgical instruments.

The British surgeon is learned in anatomy, physiology, pathology, and the kindred medical sciences. Whilst prudent and conservative, he is courageous and exceptionally thorough. If in any doubt he does not hesitate to enlarge the wound and thoroughly expose the seat of disease. At these great clinics one could not help but be impressed with the cosmopolitan character of surgery. He saw there but a repetition of what is to be seen in the operating rooms of New York, Chicago, Toronto, Montreal. Any divergencies in methods were not in essentials, but were merely due to personal preferences, or to whims.

The names of the surgeons on each morning's programme were as bewildering as fascinating, and however delightful it would be to take in a score of hospitals and see these celebrities, yet you had to make a choice and get your ticket of admission. The clinics covered the whole field of surgery and all its specialties. Sir Arbuthnot Lane's clinic always drew a crowd. His pungent epigrams—e.g., "Everybody lies," "Any fool can do a colectomy," "Suffering from the poisonous drugs given by doctors," "Anything in medicine that is universally accepted is always wrong,"—whether believed or not, were always enjoyed. He places tremendous emphasis on "intestinal stasis" as a factor in disease. The removal of a torpid and septic colon was a veritable passport to health for the victims enthralled by tuberculosis, goitre, rheumatism, and a legion of other diseases. On Friday night, at the final meeting of the "evening sessions," there was a "battle of the giants" over a symposium on "Intestinal Stasis." Sir Berkeley Moynihan (Leeds) asked, "What is meant by intestinal stasis?" It is asserted, first, that at definite points along the intestinal canal certain membranes, veils, or webs, are frequently found; secondly, that because of these delay occurs in the passage of the intestinal contents, and that in consequence a process of intoxication takes place; thirdly, that by this intoxication some diseases are directly caused, and many others, even most others, are directly encouraged. He admitted that these membranes are present, but he believed the question of their origin, and the bearing of these bands, is open to dispute. Most of them were congenital, but not those at the

hepatic and splenic flexures. He doubted if these bands were responsible for intestinal delay and obstruction, for the gut is generally not hypertrophied, as it should be if some obstruction existed. Delay undoubtedly occurs in the typical case of intestinal intoxication, not from obstruction by the bands, but from incapacity of the enfeebled intestine to empty itself. Many of these cases can be helped by massage and by paraffin. What operation should be selected? Ileo-sigmoidostomy, or anastomosis, fails on account of regurgitation. In true intestinal stasis, removal of part of the intestine should be practised. The lower end of the ileum, the cecum, and the ascending colon are the parts which it is best to remove. In regard to gastric and duodenal ulcer, and cholelithiasis, the cause lies more often in the appendix, not in intestinal stasis. While it is true that in joint tuberculosis, rheumatoid arthritis, and many other diseases, almost miraculous results may be obtained from colectomy, yet most of these cases are not benefited by operative measures intended to prevent intestinal stasis. He was not prepared to accept the view that almost all diseases were to be regarded as amenable to surgery directed to the intestines. He believes the subject must be inquired into very carefully, for amongst much dross there is a nugget of pure gold.

Sir Bertrand Dawson (London), drew attention to the two different senses in which the phrase "intestinal stasis" was being used. One means the actual delay in the passage of the intestinal contents, the other as indicating the clinical picture of the results of such stasis. He objected to the habit of looking upon the colon as a useless organ. He claimed that the indications for colectomy must be very definite, for after this operation the intestines are very easily affected by cold or fatigue. Another caution was, that we do not know the full effects of colectomy on the future nutrition of the patient. Prof. Bloodgood (Johns Hopkins) appealed for facts. Many cases in which the appendix is removed the symptoms are not relieved, nor is drainage of the gall-bladder, or its removal, always followed by relief. Out of 700 of such cases, only three returned with symptoms referable to the colon. For the purpose of analysis, cases of colon disease are divided into five

groups. In one of these, in which clinically the symptoms have been those of intestinal stasis, the patients have been relieved by the proper treatment of naso-pharyngeal and sinus infections. In the second group abdominal operations have been performed. Gastro-enterostomy is not done if it can be avoided, but the results are generally good. In the third group adhesions were present, and the results were not so good. The fourth group were the terminal cases now under discussion. He was not convinced that side-tracking was an operation of choice, though it may be of necessity. Lane (London) said the hour was late, and that he had nothing to add to what he had said over and over again. He said, " If his views were correct they must triumph; if not, they must perish."

In the ballroom of the Savoy Hotel on Thursday evening there was another " clash of the warriors," in a symposium on " The Surgery of Cleft Palate." Brown (Milwaukee) stated that all operations should be directed in three ways—1st, to covering the gap; 2nd, to obtaining speech; 3rd, to improving general health. The warnings were—1st, to do no correcting method where natural physiologic development would obviate its need; 2nd, to destroy nothing that might be wanted in such development; 3rd, to do no more than was wanted at each step. Begin with the closure of the lip as early as the first day of life, to be followed by closure of the hard palate, and lastly of the soft palate, completing the case in two or three years. He approved of lateral incisions to relieve tension if necessary. Eastman (Indianapolis) laid stress on immobilising the anterior palatine arch so as to prevent tension during swallowing on the coaptation sutures. He runs a suture with a series of reef knots from the base of the anterior arch on one side, and along the front of the uvula to the base on the opposite side. He eliminates general and depends on local anesthesia. Novocaine (1 in 2 or 300), adrenalin (1-5,000). This solution is injected wherever any paring or dissecting of mucous membrane has to be done. There is often marked pyrexia from the swallowing of blood. In the flat, nearly horizontal hard palate, with a wide cleft, mechanical compression may be used to secure approximation of the edges. In a healthy, strong child it is better to operate during first week of life. In experiments on rabbits and

guinea pigs, there is a higher index of vital resistance on the first than upon the succeeding days of life. It is true that there is a lower mortality in operations during second or third year, because of the survival of the stronger and healthier, but how many of the feeble have perished from malnutrition for want of an early operation. Brophy (Chicago) began by saying that the gap at birth was only potential. The normal amount of tissue is there and should be used immediately to close what is in effect a wound. He laid stress on the broadness of the upper jaw and on the effect of the tongue to increase the cleft. He used lead-plates for compression of the upper jaw. Berry (London)—but a Canadian, a native of Kingston, and now one of the most famous surgeons in the Empire—said the operation by median suture was the only one which restored the palate to its natural condition. The time for operation depended largely upon the nature of the cleft. At birth and soon after the cleft was usually very wide and the palatine arch low. If any median operation were attempted at this period it would usually fail, unless preceded by the wiring operation, which he thought too dangerous to be generally employed. The reason for postponing the palate operation for a year or two was that after suture of the hare-lip the cleft in the palate greatly decreased. In conclusion he presented patients that could pronounce difficult words and recite pieces exceptionally well. Careful education in speech was very essential after all operations on patients old enough to be taught.

GERMAN SURGEONS.

There were many very distinguished surgeons from Germany and Austria present, and as war between Britain and these countries had not yet been declared, the fraternal feeling was all that could be desired, but they vanished almost instantly when war was declared against Russia. There were none to be found when England declared war. They were splendid fellow-workers. This is another proof of the diabolical character of war, when friendships so pleasant and profitable had to be submerged, and the boon companions of yesterday are to-day arrayed against each other in mortal conflict. When will Christianity and civilization control the ambitions, passions, or fears of men and of nations?

Militia and Naval Medical Services and Ambulance

THE WAR: SOME IMMEDIATE DUTIES

It is a clear duty of all members of the medical profession who remain at their ordinary civilian work to see that those medical men who have pledged themselves in advance to serve the country in any such emergency as has now arisen shall not suffer in their civilian practices, and that their patients shall be looked after. The country has to meet a situation such as it has never before been called upon to face, for events moved less swiftly in the Napoleonic wars, and we must all stand by the men who are taking their places in the first fighting line.

The Royal Navy is fully mobilized, and the medical officers —Staff Surgeons and Surgeons—of the Royal Naval Volunteer Reserve have been called up. This Reserve consists of civilian practitioners who have been trained to the special work of a naval surgeon in time of peace. They are now on duty, many of them at sea.

As the Territorial Force has been mobilized, a large number of medical practitioners who hold commissions in that force have left their civil practices and joined the units of which they are members. There are fourteen mounted brigade field ambulances and forty-two field ambulances forming part of the fourteen divisions into which the Territorial Force is distributed. These officers are no longer civilians; they are under military orders, and must go wherever the division to which they belong is sent.

In Southampton, in Exeter and in London steps have already been taken which we venture to suggest might well be imitated all over the country. In Southampton, where it appears that about one-half of the doctors in active practice are

liable to be called up, a meeting of the medical profession was held on August 4th, when it was resolved: "That this meeting of the medical profession loyally undertakes to safeguard the interests of those of their colleagues who are called to leave their practices in the service of their country, and also undertakes any medical duties for the sole benefit of the absentees." A committee was appointed to carry out this resolution, and immediately issued a notification asking each doctor liable to be called away for duty to make any arrangements he could with practitioners in his neighborhood, and offering, should he be unable to do so, itself to make such arrangements. Insured patients attending the surgery of a deputy doctor will be shown a printed list of doctors remaining in the town, and will be referred to one of them for treatment. Poor Law doctors also are asked to do the necessary parish work of their absent colleagues. In Exeter the Chairman of the Division of the British Medical Association, Dr. Arthur C. Roper, in the absence of the Divisional Secretary, Dr. Eager, who is an officer of the First Wessex Field Ambulances, and was in camp, summoned a special meeting of the Exeter Division for August 6th, in response to a requisition signed in anticipation of the declaration of war, to decide what steps should be taken to provide the public with adequate medical attendance in the absence of many medical men on military duty, to save those medical men so absent from financial loss, and to discuss any other business arising out of the situation. Dr. Roper, in calling the meeting, pointed out that the matter is one which affects practitioners in rural districts as well as those in towns, and that it is within the knowledge of some of those who signed the requisition that mobilization of the Territorial Force will practically denude some country districts of doctors. In London a special meeting of the Panel Committee has been summoned for August 7th, when it will be proposed that steps shall be taken to secure the medical treatment by practitioners on the panel of insured persons on the lists of those of their colleagues who are absent on military duty and have been unable to make suitable arrangements. It will also be proposed that practitioners on the panel for the County of London shall express their willingness to undertake, free of charge, the medical treatment of necessitous

dependents of reservists on their lists who have been called to the colors, and of insured persons who have become unemployed as a result of the war.

The Insurance Commissioners in England have issued a circular letter to all Insurance Committees, pointing out the necessity of making arrangements of the nature of those indicated above, but it will obviously be well that the profession in each locality should take the initiative, as the provision for insured persons will be only a part of what should be done.

In addition to the medical officers in the Territorial Force, constituting the Territorial field ambulances, there are those who constitute the Sanitary Service, and they have all now become available for military duty with the divisions. The Territorial Force has also twenty-three general hospitals in the chief centres throughout the country, and a medical staff for the organization of fourteen clearing hospitals. The staffs of the general hospitals will not at present be expected to do more than test and stand by their organization, so that they may be in a position at once to admit sick and wounded should they be called upon to do so.

Offers of service from senior students for employment as dressers are coming in, and suitable applicants will be engaged; the Navy already has some actually afloat. The regulations for the entry of these Surgeon Probationers into the Royal Naval Volunteer Reserve will be found at page 318. These young men ought not to be allowed to suffer in their careers. The time spent in this way should be reckoned as part of their clinical training, and it would be well that the General Medical Council should take the initiative by intimating to the licensing authorities that such a course would in the circumstances be proper. The Council might possibly make some general regulation which we have no doubt would be accepted by all the licensing authorities.

Both the navy and the army have a reserve of nurses. Nearly every one of the large hospitals undertook some years ago to supply each a certain number of nurses when called upon in an emergency. The response to-day has been, it is hardly necessary to say, ready and prompt. The selection is made by

the matron of the hospital, subject to the approval of the navy or army authorities.

Offers of service are pouring in to the medical departments of the navy and army. Individual offers by untrained persons are rather embarrassing; the spirit is admirable, but efficient help can be given only by trained persons working in organized bodies. The Voluntary Aid Detachments which have been constituted in most parts of the country during the last few years are responding well to the call upon them, and individuals—men or women—who have not already some place in the organization of the Admiralty or War Office can best serve at the present time by joining the Detachment in their neighborhood or, if necessary, helping to organize one. There is room in such detachments not only for trained nurses, but for cooks, attendants and orderlies, and arrangements should at once be made locally to prepare, for the reception of convalescents, country houses whose owners may be willing to offer them for this purpose.

The Admiralty has received numerous offers of vessels to serve as hospital ships. We understand that all such offers will be noted, but we question very much whether they ought to be accepted. The multiplication of small hospital units is doubtful policy, and a yacht capable of accommodating only, say, eight or ten patients would not make any appreciable addition to the official provision, and might cause anxiety. Such boats might eventually be of some assistance in supplementing the Admiralty carrier ships which will bring sick and wounded from the hospital ships of the fleet at sea to the base hospitals ashore. In present circumstances offers of convalescent accommodation would be more highly appreciated. The sick and wounded will be landed as rapidly as possible at naval base hospitals, and it will be important to have facilities for drafting convalescents from these hospitals to suitable places in the country as rapidly as possible.

The Admiralty has issued notices stating that it is prepared to receive applications for temporary service as surgeons in the Royal Navy. Applicants must not be more than 40 years of age, and should apply to the Director-General, Medical Depart-

ment of the Navy, Admiralty, S.W. The pay offered is 22s. a day with allowances, and equipment allowance for uniform. We understand that the response has already been very considerable, but that applications will still be received. Applicants by letter will be notified when to attend at the Medical Department of the Admiralty, where they will be examined as to their physical fitness for the service.

The War Office has also issued a notice that it is prepared to enlist civilian surgeons. The age of the civilian surgeons enlisted must as a rule not exceed 35 years, though in special circumstances individuals may be accepted up to the age of 40. Those accepted will have the rank of lieutenant in the army, and must engage for twelve months or until their services are no longer required. They will receive 24s. a day inclusive of all money allowances except travelling allowances and expenses when travelling on duty. They will receive a gratuity of £60 on the termination of their engagement if they have rendered satisfactory service. We understand that a large number of applications have already been received, but that the list is still open for immediate service, and that the names of later applicants will be recorded to be called upon in the future as required.

The British Medical Association has, through the Chairman of Council, notified the Prime Minister that it is ready to make use of its machinery to assist the Government in any appeal it may desire to make to the medical profession. The response to the first announcements that civilian surgeons were needed for the navy and army has been immediate, and will probably within the next few days prove ample for present needs, but the offer of the Association will stand good for the future, and no man can say what that future has in store, nor how great the sacrifices we may be called upon to make in the life and death struggle which has been forced on the country.—*Brit. Med. Jour.*, Aug. 8, 1914. J. T. F.

ARMY MEDICALS IN VALCARTIER

The officers and men of the Army Medicals left Toronto, under the command of Colonel Macpherson, for Valcartier from Cherry Street station on August 31st, following orders from Ottawa received the day before. The contingent, which is organized as a field ambulance, broke camp at Long Branch at 6 o'clock, and came by car to Sunnyside, marching to Cherry Street station and entraining at 10 o'clock. They left home in good shape, being the picked men of the corps, and were given a send-off by the remainder of the Red Cross men in camp.

Just after the engineer blew the warning whistle, a group of stalwarts in one of the cars gave the Varsity Meds' yell, and the familiar:

"Varsity Meds, Varsity Meds, Varsity Med-i-cal!"

rang out and was heartily cheered.

The men who left formed a composite corps of the different units. They came from the 10th, 11th and 13th of Toronto, the 12th and 19th of Hamilton, and 15th of London. The whole corps was in charge of Col. Foster.

HOSPITAL ACCOMMODATION AT VALCARTIER

Knowing the intense interest now taken in our troops at Valcartier, particularly of their medical and hospital care, the following interview with Dr. G. Sterling Ryerson, founder of the Red Cross Society in Canada, and a lieutenant-colonel in the Canadian militia, is worthy of careful perusal.

"The site of Valcartier," said Dr. Ryerson, "is a fine, well-drained, sandy plain with moss and fine herbage. The water supply is plentiful and good, free from bacteria, but contains some vegetable matter which requires to be treated. The water is freely supplied through the camp by means of hydrants which are located every fifty yards. The food is plain, good, and plentiful. I took the trouble to inspect the kitchens, and found

the cooking was of a good lumber-camp description. In regard to clothing, the men are being served with strong canvas suits in khaki, and very excellent boots, known as moccasin boots. Every man has two suits of underwear and spare socks.

"As to drainage, very little is required owing to the porous quality of the soil, although ditches have been dug to carry off the surplus water. The sanitary service is under the direction of Lieut.-Col. C. A. Hodgetts and Dr. George Nasmith, of Toronto, the latter an honorary lieutenant-colonel. Fine laboratories for the examination of food and water have been erected, and every precaution taken to preserve the health of the troops."

Referring to the serum safeguards against typhoid, Dr. Ryerson pointed out that statistics of the Indian army show that in 1912 the loss of troops from typhoid was 625 per annum—a whole battalion. After the introduction of the serum the death rate from typhoid in the Indian army fell in 1913 to 25.

If men fall sick at Valcartier, they run probably less risk than would be the case back in their home towns. The first and second stationary hospitals have now been established within the camp. "Admirably equipped," said Dr. Ryerson, "with iron beds, mattresses, pillows, and everything to make the men comfortable. The Government has supplied plenty of drugs and very complete operating tents lighted by electricity, and a complete dental outfit at each hospital with an experienced dentist in charge.

"The base hospital is at Quebec and in charge of Major J. T. Clarke. Dr. Murray McLaren, of St. John, New Brunswick, has been employed by the Government as surgical expert and has performed already two or three operations for appendicitis. The sick are removed by special ambulance train from Valcartier to Quebec. The number of sick at Valcartier averages 40 in-patients daily and 100 out-patients a day for each hospital. All cases are minor complaints or injuries.

"Medical examination of all the troops has been conducted by a corps of twenty-four medical officers under command of Lt.-Col. Shillington, of Ottawa. A large number of men are put through every day and the average percentage of rejections is five; some regiments run higher and some lower.

"It is interesting to note the considerable proportion of French-Canadians in camp, their number ranging between 500 and 1,000. There is also a scattering of men of the nationalities of our allies. One especially is a fine-looking Russian who had no training whatever with a rifle, and the moment one was placed in his hands he commenced making bull's eyes one after the other. It was a remarkable exhibition.

"It is probable that the Canadian Government will be asked to furnish one general hospital of four hundred to eight hundred beds and two stationary hospitals of two hundred beds each for service abroad. The medical establishment of the stationary hospital is sixteen medical officers, eighteen female nurses, and eighty-four non-commissioned officers and men of the Army Medical Corps. If this is carried out it will give a large opportunity to Canadian nurses and Canadian medical officers to serve in the field. But it should be understood that no nurses will be accepted except trained nurses, graduates of recognized public hospitals."

The Canadian Red Cross Society, which was of some service in the Spanish-American war and was active in the Boer war, where Dr. Ryerson was chairman of the executive and Red Cross commissioner in Africa, is now engaged in getting money and supplies all over Canada.

RECEPTION HOSPITAL, TORONTO

The Pavilion on the grounds of old Toronto General Hospital has been fitted up as a Reception Hospital for observation and treatment of incipient and suspected mental cases.

Physicians of Toronto and vicinity desiring to have patients (non-alcoholics) admitted may send them directly to the Reception Hospital, and by signing the admission form patients may be admitted with the least possible delay.

Dr. Harvey Clare, Assistant Medical Superintendent of Queen Street Hospital for the Insane, has been appointed Medical Director, and Dr. W. T. Parry is Official Examiner.

Obituary

DEATH OF DR. BRUCE RIORDAN

One of Toronto's best known practitioners passed away on Saturday night, August 29th, in the person of Dr. Bruce Livingston Riordan. Born at Port Hope on March 17, 1859, he was the grandson of an Irish settler, who located in Ontario when its population could easily be numbered by thousands. After securing his primary education at Port Hope Grammar School, he studied medicine at McGill University, where he graduated before reaching the age of twenty-one. Later he took the necessary qualifying degrees at Toronto University. Entering upon the profession at this early age he rose rapidly, and has been for many years making consistent headway. Dr. Riordan was a surgeon and had considerable experience with accident work by his connection as a railway surgeon.

For one and a half years after his graduation, Dr. Riordan was ship surgeon on the Allan Line. Coming to Toronto in 1881, he commenced practice on Sherbourne Street, and has been actively connected with the work of his profession in this city until shortly before the time of his death. His office was located in turn on Peter, John and Simcoe Streets, and latterly at 1 Roxborough Street East, with headquarters down town at 101 Bay Street, where he was associated with Dr. Gordon Rice.

In 1881, as soon as he had located in Toronto, Dr. Riordan was made one of the twelve Grand Trunk surgeons, and for the past fifteen years was divisional surgeon for the Ontario lines of the Grand Trunk Railway System. Besides holding this appointment, he was chief surgeon for the York Radial Railway, and dean of the staff at Grace Hospital. The late Dr. Riordan was formerly a member of the Board of the Toronto General Hospital, and was until his death a consulting

surgeon on the staff of that institution. The Association of Railway Surgeons of the United States and Canada claimed Dr. Riordan as their president. Several years ago he was also Vice-President of the Ontario Medical Association, member of the council of the Academy of Medicine, and was at his death the President of the Esculapian Club.

Dr. Riordan was a member of a number of Clubs, and prominent among certain Orders. The funeral took place on Tuesday, September 1st, when the profession was largely represented.

Personals

CANADIAN PHYSICIANS AT VALCARTIER

Those of Toronto who have already given up their incomes and means of livelihood at the call of duty are as follows:

Lt.-Col. D. W. McPherson, D.A.D.M.S., 2nd Div.

No. X. Field Ambulance—O.C., Major W. B. Hendry, Lieuts. H. L. Jackes and A. S. Lawson.

No. XI. Field Ambulance—O.C., Major C. J. Currie, Major E. B. Hardy. Captains H. R. Holme, J. H. Wood, W. L. C. McBeth and H. Orr.

No. XIII. Cavalry Field Ambulance—O.C., Major Wallace Scott, and Captains R. S. Pentecost, G. R. Philp and N. J. L. Yellowlees, and Lieut. W. T. H. McLean.

From Hamilton—Nos XII. and XIX. Field Ambulances will come under command respectively of Major G. D. Farmer and Major J. E. Davey.

From London—No. XV. Field Ambulance—O.C., Major E. G. Davis.

From Sarnia—No. XIV. Field Ambulance—O.C., Major D. B. Bentley.

No. 1 Field Ambulance proceeded to Valcartier on the 31st August, in command of Lt.-Colonel D. W. McPherson, with the following officers: Major W. Scott, Capt. P. K. Menzies, Capt. J. C. Calhoun, Capt. P. G. Brown, Capt. G. Hyland, Capt. W. H. Fox, Lieut. T. H. McKillip, Lieut. H. B. Jeffs, Lieut. O. J. C. Withrow. Number of rank and file, 199.

On the above date No. 1 Clearing Hospital also proceeded to Valcartier, the officers being Capt. C. E. Cole and Capt. G. W. O. Dowsley. Number of rank and file, 40.

On the 6th September No. 1 Stationary Hospital proceeded to Valcartier, in command of Major D. B. Bentley, with the following officers: Capt. W. H. Tytler, Capt. W. Bethune, Capt. J. J. Fraser, Capt. W. A. Burgess, Capt. S Ellis, Lieut. J. N. Stewart, Lieut. F. S. Ruttan, Lieut. G. Stewart. Number of rank and file, 130.

On the above date the No. 1 General Hospital also proceeded to Valcartier in command of Major E. B. Hardy, with the following officers: Capt. R. H. Nicholls, Q.M., Capt. R. S. Pentecost, Capt. G. R. Philp, Capt. W. L. C. McBeth, Capt. J. H. Wood, Lieut. F. S. Burke, Lieut. G. C. Gliddon. Number of rank and file, 111.

Dr. Harvey Todd, 163 College Street, and Dr. P. G. Goldsmith left for Valcartier Camp the last week of August.

Dr. Eddie Robertson, 143 College Street, left for the front with the Q. O. R. Contingent on August 28th.

Dr. Gordon G. Copeland has commenced practice at 73 Bloor Street East, corner of Church. Specialty, Gynecology and Obstetrics.

ONTARIO MEDICAL ASSOCIATION

The next meeting of the Ontario Medical Association will be held in Peterborough in May, 1915. Arrangements are now being made to have this annual meeting in conjunction with the Medical Health Officers' Association, so that the attendance will be large and members will be sure of reduced fares on the railways.

THE CANADIAN PUBLIC HEALTH ASSOCIATION

Owing to the unsettled conditions due to the European war, it was decided to cancel the meeting of the Canadian Public Health Association, which was to have been held in Fort William and Port Arthur, September 10th to 13th.

The Physician's Library

Manual of Diseases of the Eye. For Students and General Practitioners. By Charles H. May, M.D. Eighth edition. New York: William Wood and Company. 1914. $2.00 net.

This edition is somewhat enlarged, but its great advantage over the other editions is in its better paper, larger type and illustrations. Eight editions in thirteen years is sufficient evidence of the popularity as well as the worth of the book.

Diagnostics of the Fundus Oculi. By Edward L. Oatman, M.D. One volume of text, with 234 illustrations, and two portfolios of seventy-nine stereograms. Troy, New York: The Southworth Company.

The ophthalmological examination of the eye as usually practised is monocular, but it is impossible in any drawing to give the desired effect of depth. With a stereoscope this can be done. Oatman has had recourse to this method, and the sensation of depth obtained from the stereogram is simply marvellous. It is as if one were actually looking into the eye with the ophthalmoscope.

Unlike most works upon ophthalmoscopic diagnosis, with each drawing there is a short history of the case illustrated, the differential diagnosis is considered, and in some cases the pathology and prognosis. Frequently there is a running commentary on the appearances seen in the stereogram which makes a first-class clinic. It is safe to say that Dr. Oatman's work will occupy a position on the shelf of the ophthalmologist from which it will not be displaced for many a long year.

J. M. M.

Practical Hormone Therapy. A Manual of Organo-Therapy for General Practitioners. By Henry R. Hanover, M.D., Sometime Professor of Clinical Diagnosis, Loyola University, Chicago, Fellow of the Royal Society of Medicine, Fellow of the American Medical Association. With Foreword by Professor Dr. Arthur Biedl, Vienna. London: Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden. 1914. (All rights reserved.)

Hormone Therapy, or the treatment of disease by the internal secretions of various organs, is not new, but the work of Biochemists has added a great impetus to this branch of Therapeutics. The book is divided into seven sections and an appendix. The Hormones of the Digestive, Nervous, Reproductive and Vascular Systems are fully described. There is also a Miscellaneous Section, which describes the use of Pluriglandular Extracts, the Control of Hyperendocrinism, and the Preparation of Animal Extracts. An invaluable book for the physician who keeps abreast of the times.

A. J. H.

Gas Poisoning in Mining and Other Industries. By John Glaister, M.D. (Glas.), D.P.H. (Camb.), F.R.S.E., etc., etc., Professor of Forensic Medicine and Public Health in the University of Glasgow; Senior Medico-Legal Examiner in Crown Cases for Glasgow and Lanarkshire, etc., and David Dale Logan, M.D. (Glas.), D.P.H., Surgeon to the Coltness Ironworks, Newmains, etc. With plans, colored plates and thirty-six other illustrations. Edinburgh: E. & S. Livingstone, 15, 16 and 17 Teviot Place. 1914.

Though the subject of gas poisoning in mining and other industries is not one that frequently comes under the notice of the average city practitioner, at the same time this book will be found exceedingly useful by many physicians who are engaged in attendance upon those laboring in mines and other industrial pursuits.

This book represents the views of most authors on this subject, and will be found exceedingly helpful.

The writers in this volume have had much experience with industrial gas poisoning, particularly as they have been placed in direct contact with accidents in mines arising from foul air and noxious gases. The book covers over four hundred pages and is divided, in all, into sixteen chapters, covering a large range of subjects. W. A. Y.

The Philosophy of Radio-Activity. By Eugene Coleman Savidge, M.D. New York: W. R. Jenkins Co.

Dr. Savidge needs no introduction as a philosophical writer to the medical profession. His works on Cancer and Malignancy show him to be a leader in that line of thought. To the ordinary practitioner this book must be a revelation of the changes which are taking place in the realms of scientific thought.

Geologists, Chemists, Astronomers and Physicists are fast beginning to accept the logic of Radio-Activity, even though it alters "their square of the distance" in computing planetary spaces, temperature, etc. Chemists have promptly reconstructed their atoms to suit this new philosophy. The book, without the aid of calculations or higher mathematics, has given in every-day language the latest ideas found only in the transactions of Philosophical Societies. K. M. B. S.

A Hand-Book of Psychology and Mental Disease, for use in training schools for attendants and nurses and in medical classes, and as a ready reference for the practitioner. By C. E. Burr, M.D., Medical Director of Oak Grove Hospital (Flint, Mich.) for Mental and Nervous Diseases; formerly Medical Superintendent of the Eastern Michigan Asylum. Philadelphia: F. A. Davis Company.

It is generally admitted that the average work on the subject of Psychology and Diseases of the Insane is not the easiest to read, and we feel that Dr. Burr's fourth edition will be found

exceedingly useful, not alone to medical students, but also to members of the profession who have not the time to wade through an extensive work on Lunacy, but who like to be able to pick up in the evening something short and to the point. Dr. Burr's work covers about two hundred pages, and after glancing through it we can recommend it to our readers. It is divided in all into five parts—Part One dealing with "Psychology"; Part Two covering "Symbolism in Sanity and in Insanity"; Part Three covering "Insanity"; Part Four dealing with "The Management of Cases of Insanity from the Medical Standpoint"; and Part Five, "The Management of Cases of Insanity from the Nursing Standpoint." W. A. Y.

Diseases of Infancy and Childhood—Their Dietetic, Hygienic and Medical Treatment. A Text-book designed for practitioners and students of medicine. By Louis Fischer, M.D., Attending Physician to the Willard Parker and Riverside Hospitals of New York City, Attending Pediatrist to the Sydenham Hospital, Former Instructor in Diseases of Children to the New York Post-Graduate Medical School and Hospital, etc., etc., Fellow of the New York Academy of Medicine. Fifth Edition. With 301 Illustrations, several in colors, and 43 full-page half-tone and color Plates. Philadelphia: F. A. Davis Company, Publishers. English Depot, Stanley Philips, London. 1914.

No subject has made so many changes in treatment as have taken place in Pediatrics. Dietetics, fresh air and hygienics combine to change the methods formerly in vogue in this most important branch of medicine. The scrupulous care exercised in feeding, the wonderful scrutiny of milk sources, and the sterilization of everything pertaining thereto have wrought the greatest benefit to the countless thousands of children of the present day. More children die every year from overfeeding and its results than from all other influences combined. Strict attention to what goes into a child's stomach is its salvation. Dr. Fischer must be congratulated on his excellent, up-to-date edition. A. J. H.

Nucleic Acids.—Their Chemical Properties and Physiological Conduct. By Walter Jones, Ph.D., Professor of Physiological Chemistry in the Johns Hopkins Medical School.

The Nucleic Acids constitute what is possibly the best understood field of Physiological Chemistry, and this is the first monograph which deals exclusively with this subject.

A. J. H.

A Treatise on Diseases of the Rectum and Anus. Edited by A. B. Cooke, A.M., M.D., formerly Lecturer on Diseases of the Rectum and Professor of Anatomy in the Medical Department, University of Nashville; formerly Professor of Anatomy and Clinical Proctology, Medical Department, Vanderbilt University; Fellow of the American Medical Association; Fellow and sometime President of the American Proctologic Society, etc.; assisted by Wm. M. Beach, A.M., M.D., Pittsburg, Penna.; J. Coles Brick, M.D., Philadelphia, Penna.; George B. Evans, A.M., M.D., Dayton, Ohio; Alois B. Graham, A.M., M.D., Indianapolis, Ind.; Grenville S. Hanes, M.D., Louisville, Ky.; Louis J. Krouse, M.D., Cincinnati, Ohio; Collier F. Martin, M.D., Philadelphia, Penna.; Frank C. Yeomans, A.B., M.D., New York City; A. J. Zobel, M.D., San Francisco, Cal. With 215 Illustrations in the text and 21 Full-page Plates, 7 in colors. Philadelphia: F. A. Davis Company, Publishers. English Depot, Stanley Philips, London. 1914.

Every practitioner needs such a work as the Editor of this book has compiled. It represents the most authoritative teaching of this subject of the present day. The contributors who are associated with Dr. Cooke are the most prominent Proctologists of the day in the United States. The work is a valuable one for students of medicine as well as practitioners. Kraske's as well as Mayo's method of operation is fully described and is of exceeding interest. A. J. H.

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Editorials

THE FEEBLE-MINDED

Dr. Helen McMurchy's eighth annual report on the feeble-minded of Ontario, for the year ended December 31, 1914, is full of valuable data which will be most useful to those who are interested in the feeble-minded and their management. As everyone knows this subject is not of mere local interest; but is as wide as humanity itself. We learn that in highly civilized countries like England and the United States, continuous efforts have been made for many years back to improve the status of the feeble-minded. This year, April 1, 1914, the British Mental Deficiency Act comes into operation. It is an act to make further and a better provision for the care of the feeble-minded and other mentally defective persons. This English act will probably be copied in preparing legislation of this kind in other countries, as it goes thoroughly into the whole question at issue. It says that the feeble-minded must be cared for; states who is to care for them and where, and who is

to pay for this and how. When fresh legislation will be required on the subject of the feeble-minded in Ontario the references in this report will be found extremely useful.

Segregation of the feeble-minded from the sane is the proper method of dealing with them. The sooner the condition of feeble-mindedness in the individual is recognized and the sooner he is transferred to a suitable environment—with all that that implies—the better. Many of the unfortunate children who are committed to the industrial homes by the magistrates belong to the feeble-minded class and are really in no position to derive any benefit from being committed to these industrial homes. Many children brought before the juvenile courts and convicted of crime are really feeble-minded. Hence, as indicated above, whether it be placed under municipal or provincial control is a matter of very little importance. It will be well to give the feeble-minded the best opportunity of training and improvement by committing them as soon as their misfortune is discovered to a colony where they will continue to exist for the remainder of their lives.

We have been very favorably impressed lately with a description given by a friend who visited New York City this spring and gives us a very pleasing description of the operation of a school for feeble-minded children in that city. This school is intended to give the advantages of special training to feeble-minded children living in the whole city. A coach calls every school morning at the houses of the feeble-

minded children living in New York City, and they are conveyed to the school. Here they receive training suitable to their necessities. Some of the children are more remarkable for anemia than for feeble-mindedness. The anemic children are allowed to play games under the glass roof of the school house. After school hours the children are returned to their homes in the coach.

The results obtained at this school, both in improved health and improved mentality, are said to be quite satisfactory. It occurs to us that a similar method might be employed to advantage here in Toronto, a motor bus or some similar vehicle being used to convey the children from their homes to the special schools.

APARTMENT BUILDINGS IN TORONTO ADD TO THE SMOKE NUISANCE

The air over the city of Toronto is polluted with enormous quantities of black smoke, and no persistent effort is made to overcome the nuisance. The civic health department, which shows commendable activity in repressing all the grosser nuisances, in caring for the milk supply, in destroying flies, etc., pays no attention to the tall chimneys of this city.

The mass of the citizens if they stop to think about the smoke nuisance conclude that it is not dangerous to life. That it is a rather ugly expression of a beneficient thing, a sign of advanced civilization, an indication of prosperity, big dividends, etc.

It is quite true that soft coal at $3.50 per ton is a cheap fuel, and certain kinds of manufacturing energy, steam and electric, are maintained in good running order by soft coal fires. It is equally certain that unless civic control and inspection be exercised over the tall chimneys, the black smoke nuisance in Toronto will increase with the growth of our manufacturing industries.

The manufacturing concerns of Toronto must have great influence with the city council, for we have yet to learn that any determined effort has been made by the city to limit the black smoke products. Possibly the managers of apartment buildings can also claim for themselves the privileges and immunities of manufacturers, because they heat water for their tenants the whole year round. In so doing, however, they add to the black smoke nuisance of the city because their furnaces are heated with soft coal. Hence the apartment house managers—whose number is increasing all the time—are contributing no inconsiderable share to the black smoke nuisance of Toronto. Their chimneys vomit black smoke night and day, winter and summer.

Many of the well-to-do housekeepers of Toronto use gas cookers for food products and heat water for laundry and bath purposes with gas—thereby adding very little to the pollution of the atmosphere. In cold weather they consume hard coal in their stoves and ranges. Hence the ordinary housekeeper adds little or nothing to the black smoke nuisance.

One remedy for removing the foul smoke atmosphere from this city would be to oblige all housekeepers, apartment or otherwise, to use anthracite coal in their furnaces or use gas.

"THE ONTARIO MEDICAL COUNCIL COULD SETTLE THE WHOLE QUESTION IN FIVE MINUTES"

So say Sir William Osler and Donald Armour. Is this another of Sir William's chloroform jokes? Why put the onus on the Ontario Medical Council and not on the War Office, which has refused the patriotic offers of service during the war of certain graduates in medicine of the Province of Ontario, on the ground that they were not licensed to practice in Great Britain? Red tape and tired officials account for many mistakes. Of the multitude of examining bodies in Great Britain, are there none who hold examinations in time to let these patriotic Canadians go up for their examinations before this war is over?

Medical reciprocity is settled, was settled some twenty-five years ago. Has Sir William forgotten *the good old times* when medical reciprocity did exist in Ontario, when it was a game of "Heads I win tails you lose" as far as Ontario was concerned? On payment of the required fee, the English graduate was allowed to practise in Ontario, no matter what the examining board from which he came, Universities galore, Colleges of Physicians, of Surgeons, Apothecaries Societies, Apothecaries Halls, of London, Edinburgh, Glasgow, Dublin, and the Lord only knows

where else. The man from Ontario received the treatment that the War Office hands out to him to-day. *He* was *not* registered on payment of a fee. *He* was *not* allowed to practise in Great Britain, until he had passed some of the English examining boards. Later on he was by a special act of condescension put on a special register—the Colonial Medical Register.

The Ontario medical student soon woke up to the fact that getting the *English registration was a soft snap.* He found that the Ontario Medical Council demanded certain years of medical education, that he could get a degree from one of the medical schools or one of the universities, go to the Old Country, pass an examination, get back and register with the Ontario Medical Council, and yet get through in from one year to nine months less of study that if he had taken the examination of the Ontario Council. You will hear the old boys softly laugh yet when they think of it.

The Ontario Council got tired of being done by both the Britisher and their own students, and put an end to this state of affairs. Were reciprocity in medical licenses to come into force, the same state of affairs would again spring up.

Medical reciprocity with the Old Country must necessarily be one-sided. How many men from Ontario will want to practise in the Old Country compared with the number of those from Great Britain desiring to come here? It is not necessary to speak of the quality of the men from the Old Country. Any one who has followed, in the proceedings of the Gen-

eral Medical Council of Great Britain, the complaints made of the examining bodies and the constant necessity to keep up the standard will recognize the necessity of going slowly in the matter.

The Ontario Medical Council is not alone in its attitude. The Dominion Medical Council made up of representatives from every Province of the Dominion and from every university teaching medicine has adopted the same plan. The British licentiate must pass his examination here just as the Ontario licentiate must pass his in Great Britain.

IMMIGRATION—THE GREAT QUESTION OF TO-MORROW IN CANADA

After the war, what? —— The deluge surely, for Canada indeed will seem fair as a garden of the Lord not only to all the refugees, but the idlers and general misfits of Europe. Those who have for years perhaps been a nuisance to the old world, and now they will avail themselves of the chance to smuggle in unnoticed with the great wave of desirables, who may knock at our doors and who may prove worthy homesteaders in this land of golden harvest. We are all very human, and the sympathy will be very genuine all over this land that will be extended to those who are wounded, those who are bereft, and those who are financially hurt by this terrible war; but in justice to Canada, and in honor and faith to those who

must bear this nation's burden after us, we, as medical men, must stand out for the health of the people against the influx of the diseased and physically unfit. Already we are "poisoned" in our schools by the children of immigrants who never should have been allowed to land on our shores, instead of being bribed to come. This country is not a huge Preventorium for Consumptives as many, listening to Lady Aberdeen's eloquence, have been persuaded to believe. Nor does it seem wise at this moment to encourage the Belgian lace makers to come in any great numbers owing to the fact that they frequently so soon lose their eyesight and become a burden on a young country already not quite able, though nobly trying, to take care of its own sufferers from many causes.

In a short screed in this column of this journal it is not possible nor fitting to go deeply nor even statistically into this question, merely light a torch and flash it for a moment, hoping that the Academy of Medicine will take up the subject of immigration and make itself heard at headquarters, speaking not only with knowledge, but with authority.

We have sent ungrudgingly our best to help old England (and her Allies) in her hour of stress—in her hour of victory let her not return her thanks by sending out to build up this glorious young Canada—the spawn of her gutters.

Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

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Original Contributions

THE MODERN WARFARE AGAINST TUBERCULOSIS AS A DISEASE OF THE MASSES *

BY S. ADOLPHUS KNOPF, M.D., NEW YORK AND PARIS,

Professor of Medicine, Department of Phthisiotherapy, at the New York Post-Graduate Medical School and Hospital; Visiting Physician to Riverside Hospital-Sanatorium; Consultant to White Mountain and Gabriels Sanatoria; Honorary President of the Medical Board of Bruchesi Tuberculosis Institute, Montreal, Canada.

(*Concluded from October issue.*)

It goes without saying that while healthful and useful occupation under sanitary conditions is not harmful to the healthy child if it has sufficient time to play and to sleep, child labor is death-dealing. It is a disgrace to our nations, yours and mine, that child labor is still carried on in many sections of our countries. All careful students of the tuberculosis problem consider child labor one of the most pathetic predisposing factors to tuberculosis in the adolescent.

As a part of the education of the masses, modern phthisiotherapy has welcomed the movement to diminish as far as possible the marriage of people acutely ill with tuberculosis. The educational value of such movements cannot be overestimated, even though its practical value is difficult to demonstrate at this time. Our views concerning marriage of the tuberculous, as well as our views on the dangers of a tuberculous conception, differ quite materially from those of 25 years ago. We are no longer deceived by the tuberculous mother's apparently better condition because of her pregnancy; we know that it is really only an illusion, and that 75 or 80 per cent., if not more, invariably relapse

*Address delivered by invitation, before the fourteenth annual meeting of the Canadian Association for the Prevention of Tuberculosis, at Halifax, N.S., July 13, 1914.

shortly after confinement. We are no longer afraid to impress this solemn truth upon tuberculous patients and urge preventive measures. When these latter have been disobeyed, the emptying of the uterus, after due consultation, may become necessary in order to prolong or save the life of the mother. Physicians working in the homes of the poor have of course also learned that repeated pregnancies in the hard working woman, the necessity of her often working until a few days before delivery, and resuming work perhaps a week after confinement, constitute one of the most appalling predisposing factors to tuberculosis in the married women of our laboring classes. Here, much education, much philanthropy, and great wisdom on the part of our city, state, and federal governments is necessary, so that they may aid such families when their earning capacity is insufficient to enable the mother to rest a few months before and after she has performed the most important function to the state of bearing a future citizen.

Sleeping out-of-doors or with windows wide open all year round is no longer considered a fad but one of the very essential features in diminishing the morbidity and mortality from tuberculosis. Any number of devices to facilitate outdoor sleeping have been invented, and are widely used. Window-tents, porchettes, wall-houses, starnooks, etc., etc., are names which were unknown to the masses 25 years ago, and also to many physicians. Now they are household words in many sections of the country.

Many business houses, corporations, and even city governments, have realized the inestimable value of the periodical physical examination of all their employees, and particularly the great importance of this measure in preventing tuberculosis. The very efficient Health Commissioner of the City of New York, Dr. S. S. Goldwater, has made the physical examination of all employees of the health department obligatory. He is contemplating the same measures for the employees of all other city departments, and very justly made the statement recently that if every citizen in the United States could thus be examined, the morbidity and mortality rate of all diseases, including tuberculosis, would be vastly diminished, and, *ipso facto,* a great economic gain would accrue to the commonwealth.

An immediate beginning might be made by examining all persons handling food products, and not licensing anyone to handle such products unless he is found to be free from tuberculosis or other dangerous infectious diseases.

Many corporations and employers of large bodies of men and women have already realized the inestimable value of thus preventing the development and spread of tuberculosis among their employees, and have introduced examinations and periodical re-examinations. Whenever a case has been found to be in need of institutional treatment, such has usually been provided. The Metropolitan Life Insurance Company of New York has gone even further by establishing at Mount McGregor an ideal sanatorium where the tuberculous employees of this great company find the best possible chances for recovery from their disease and the re-establishment of their earning capacity.

Laudable as are the efforts of large corporations, employers, and municipal and other governmental bodies, when they insist upon an examination of every candidate seeking employment, and thus weeding out the predisposed or the actually tuberculous, we must here bear in mind that this causes a new and tremendously difficult problem to confront us. These corporations, employers, etc., surround themselves with an army of those physically best fit to do their work, but at the same time a large army of men and women is created seemingly unfit, needy, and eagerly seeking employment. What are we to do with them until the time when we shall have state insurance against tuberculosis? For the actually ill we must provide sanatorium facilities, and for those only physically feeble, we must provide industrial colonies where an opportunity is given them to earn sufficient to maintain themselves and to reeuperate their strength.

Not only for the adult excluded from work because of his infirmity, but also for the child excluded from the school because of its being tuberculous or predisposed, must suitable provision for its cure and education be provided in preventoria and open-air schools, the value of which has already been emphasized. The tuberculous teachers should not be forgotten, either. They should be given opportunity to teach and get well in children's sanatoria and preventoria.

In our modern warfare against tuberculosis we not only strive to educate the government so that it may show wisdom in its dealings with the problem by requiring the registration of all tuberculous cases, by establishing dispensaries to serve as clearing houses whence cases are selected for sanatorium and hospital treatment, and whence children are sent to preventoria, but with the aid of philanthropy there has recently been established in New York City a new phase to be classed as home hospital treatment. Thanks to the generosity of Mrs. Wm. K. Vanderbilt, Sr., a number of ideal buildings, fireproof, with open air balconies, and sanitarily constructed, are utilized for taking care of the entire family when there are one or two members actually ill or predisposed to tuberculosis. The result of this home hospital experiment for the treatment of tuberculous families has been so encouraging that it is hoped that the multiplication of this magnificent philanthropic scheme will follow in both large and small cities in all sections of the country.

The advantages of such home-hospital treatment are evident when one considers that tuberculosis as a disease of the masses is a typical house and family disease, prevalent in all climes, but particularly in great centres of population; and last, but not least, that it is a very expensive disease for poor and rich alike. The advantages claimed for this method by the advocates of the home-hospital are as follows: (1) the directness of its attack upon the home conditions as a crucial, underlying cause of tuberculosis and its consequent poverty; (2) the readiness with which unsuspected, incipient cases may be detected and checked; (3) the exceptional opportunity it affords for adequate control of the disease and family; (4) its avoidance of the opposition, deterrent influence, worry and other hardships inevitably occasioned by the separation of the sick from the well members of the family; (5) the preservation of the integrity of the home; (6) the care of classes of patients who either could not or would not go to an institution; (7) its fostering an increase of earning capacity in the wage-earner and a gradual return to normal conditions; (8) its provision against a return of either the patient or family to the inimical environment where the disease was contracted and is likely to recur, and (9) in its care not only for the physical,

but for the economic and social ills, not merely of the patient, but of the entire family.

Such a work is evidently hygienic, preventive, curative, economic and educational, social, and reformative, unique and comprehensive. It aims at causes, seeks not only the cure of the individual, but the protection of society, is concerned with the patient, his family and environment, and deals with fundamental questions of ideals, of livelihood, and of life.

There is, of course, constant medical supervision of the entire family by physicians and nurses, and there are open-air playgrounds and open-air schools for children; also the home-hospital provides a store where the patients can purchase good food for virtually half the price they can purchase it in neighboring stores.

The home-hospital experiment has been carried on by the New York Association for Improving the Condition of the Poor, and the aim has not only been to cure the tuberculous families from their affliction, but also to show them the way to a better economic condition.

During the past year there have been under home-hospital care twenty-seven families, containing one hundred and thirty-five individuals, of whom seventy-nine were patients or suspects. Thus, the average number of members in each family is exactly five, and of patients two and nine-tenths. Eleven of these families, containing twenty-three patients, twelve of whom were wage-earners, have been discharged. Six of the eleven families were rehabilitated physically, socially, and economically—that is, each member has been restored to health; all have learned the lessons of personal hygiene and have acquired the habit of the lessons learned; the mothers have learned and are able to put into practice important and valuable lessons of home economy, such as how to buy to the best advantage, what to cook and how to prepare it in order to secure the maximum of nourishment at the minimum of cost; and each family is able to earn and does earn sufficient to support itself under normal conditions without the help of charity. Three families had to be discharged for persistent intemperance, and two for refusing to follow advice and direction. The condition of these five families, however, as

a consequence of the treatment received at the home-hospital, showed a very marked improvement.

When admitted, four of the families were almost absolutely dependent; the average weekly income of all was a trifle in excess of six dollars. When the rehabilitated families moved away from the hospital, their average income had increased to almost fifteen dollars per week.

The results obtained with the adult patients compare very favorably with those of the best sanatoria.

In connection with the subject of caring for the family when the breadwinner has become consumptive and has had to be sent to a public sanatorium or hospital, I must speak of another interesting experiment.

Two miles from New York's great municipal sanatorium at Otisville, N.Y., there exists an institution known as the Urania Tuberculosis Preventorium, maintained by private philanthropy. Its object is to provide food and shelter for the wives and children of the men who are inmates of the sanatorium, giving them the same climatic and hygienic advantages as at the municipal institution.

Connected with the preventorium is a farm which supplies much of the food and vegetables, and the work that the women and children can do in helping to raise these farm products relieves them from the reproach of pauperism.

The wives and families are allowed to see the patients at the sanatorium as frequently as is thought wise by the physicians in charge.

All those who know some thing of the psychology of the tuberculous will be able to appreciate the beneficial influence that will be exerted on the patient when he not only hopes, but can see for himself, that his family, though deprived of his care, are not in want. That he can see them occasionally without a drain on their resources will add to his happiness and contentment.

Since its foundation a few years ago the Urania Preventorium has cared for some two thousand women and children. It is evident that a preventive work of inestimable importance can be accomplished in such an institution by medically supervising and treating, if necessary, any members of the patient's family, who

may have inherited or acquired the tubereulous taint. The eure of the patient is aided, and he is reunited to a healthy family and becomes once more prosperous, instead of returning from the institution to a family stricken with the disease from which it had cost so much sacrifice to obtain his eure, and of which the added work and worry and exposure to new infection may bring on a relapse.

Regarding climatic conditions I wish to repeat what has been said before, but what cannot be too often reiterated, for it belongs in the scheme of the modern warfare against tubereulosis as a disease of the masses. I am by no means willing to underestimate the value of certain climatic conditions, altitude, elevation, topography, forested lands, etc., and am even willing to concede that there are ideal climates. However, what is ideal for one patient may not be ideal for another, and if I would be asked to define an ideal climate for our purpose, I would have to say that the ideal climate for the tubereulous patient is the one where he can live out of doors with comfort, enjoyment, and benefit the greatest number of days in the year and the greatest number of hours in the day.

In selecting the site for an institution we try to aproach this ideal as far as practicable, bearing in mind at the same time that fresh, good, and pure air, moderate elevation, a reasonable protection against cold wind, and freedom from dust, suffice to obtain excellent results with the vast majority of patients in the early stages. Furthermore, we have learned that as a rule such sites can be found within our home climates, and that since the vast majority of our patients come from the laboring classes, it has proven most advantageous to treat and cure them in the same or nearly the same climate in which they have contracted the disease, and where they will have to live and labor after their restoration to health. Even if the cure in the home climate should take a little longer, relapses seem to be fewer than when the patient has been sent to climatic regions totally different from those in which he has been accustomed to live, and to which he has to return after his earning capacity has again been established.

Our institutions for the advanced cases we like to place near the large centres of population so that the friends and relatives of the poor sufferer may easily and frequently visit him without

too great expense. Our modern conception concerning the institution for advanced cases has also changed. Thus, personally, I do not even believe in calling these institutions hospitals, because we have unconsciously in late years educated the masses to believe that the sanatorium was for the curable cases, the hospital for the hopeless ones. To give hope and cheer even to the advanced cases, we like to call these institutions hospital-sanatoria. We strive to make these institutions for our consumptive poor in the advanced stages attractive, even beautiful, and above all comfortable, so that the patient will not miss his home, and that his relatives and friends can feel that the place where he is, is a good place for him to be. Occasional entertainments, music, or moving picture shows, an instructive and interesting lecture, anything that may tend to divert the patient's mind from his affliction, or may give him happy moments, is resorted to. All that human skill, sympathy, and kindness can do should be done for him there.

Thus we resort now to artificial pneumothorax in these advanced cases to allay the most distressing symptoms of mixed infection, and by the same means we are often able to control a seemingly uncontrollable hemorrhage. We have now even a means of relief, often lasting for weeks, for that most painful complication caused by the tuberculous envolvement of the larynx. It consists in the injection of a few drops of a solution of two grains of eucaine in an ounce of 80% alcohol into the region of the superior laryngeal nerve. Lastly, in extremely cold weather, we no longer insist that these far advanced anemic and emaciated patients remain out of doors and suffer. Unless they prefer the cold they are allowed to stay in warm and comfortable quarters.

And now to a phase of the tuberculosis problem which is of vital importance, and to which sufficient attention has only recently been made. I refer to the occupation of our pulmonary invalids while in the sanatorium, and also after they have left the institution as sanatorium graduates. My own training in the Falkenstein Sanatorium as assistant to my immortal teacher, Professor Dettweiler, resulted in the idea of rest, rest, and rest again for the tuberculous patient, in no matter what stage of the disease. Only in a few instances was walking permitted. We now not only resort to work for our afebrile tuberculous patients for

the purpose of occupying them usefully, but we look upon work for this class of patients as a part of our modern phthisiotherapy.

I dealt exclusively with the subject of occupation therapy for the tuberculous in a recent address delivered before the ninth midwinter meeting of the American Sanatorium Association, which had then gathered at the Municipal Sanatorium at Otisville, N.Y.,* and I may be permitted, for brevity's sake, to quote some of what I said then: "I am not a partisan to the idea that every tuberculous patient, when on the road to recovery or when his disease is arrested, should do farmer's or gardener's work. The tailor, the weaver, the shoemaker, the dressmaker, or the woman or girl who has been occupied in the tenements with making artificial flowers for fifty cents a day, the bookkeeper, office or store clerk, the typewriter girl, stenographer, or shop girl, the waiter, or any other man or woman who was born or has lived in the city for years and pursued indoor occupations, will as a rule make a poor farm hand. Some of these patients may be able to work a few hours on the farm, but they will rarely be satisfied, happy, or even contented, and I question whether their physique will ever be able, even when they have completely recovered, to stand the strain of a farmer's life."

What, then, is the ideal occupation for the afebrile tuberculous patient? I believe that, whenever it is possible, we must consider first the psychological, or, in plainer words, the mental attitude of the patient. Whenever we can, let us occupy him with something that will make him happy or at least contented, and the work must always be for a purpose. To have a patient carry a load from one end of the road to the other, or build a brick wall and tear it down again, merely for the sake of exercise, I believe is an absurd practice. If it could be done, I would even favor paying the patient, particularly if he is poor, for useful work accomplished by him in the sanatorium; this does not lessen the value of occupation therapy, but instead enhances it.

Furthermore, when we consider that many patients need the money they may thus earn to support, or help to support, their families, we will perceive that the beneficial psychical influence,

* "The Occupations of Afebrile Tuberculous Patients," Medical Record, January 24, 1914.

the peace of mind which is thus obtained for the patient invariably acts favorably on his physical condition.

In the Metropolitan Life Insurance Company's institution at Mount McGregor, above referred to, the patients, who are all employees of the company, are occupied with work similar to that to which they were accustomed in the home or branch office. The amount of work expected from the patient is of course prescribed by the house physician after careful examination and watching.

The policy which I have endeavored to outline in my article on the occupations of afebrile patients in the sanatorium, I believe should be followed with the graduate patient who has left the sanatorium either cured, arrested, or at least sufficiently improved to have his earning capacity restored. In the opinion of a number of sanatorium directors who have carefully followed up their cases after discharge and who have studied this phase of the problem, it has been found best, from an economic, social, and therapeutic point of view to have the patient, discharged from the sanatorium, resume, if at all possible and not evidently injurious, the same occupation which he had followed prior to his contracting the disease, and which assured him a reasonable livelihood. Of course, if the sanitary conditions of his home or workshop were bad they must first be improved, and the training which the patient has received in the sanatorium concerning what is good and what is bad for him, will be of invaluable aid in this regard.

There remains now another equally important factor to insure that the improvement, arrest, or cure of a case shall be a lasting one. I refer to the necessity of keeping tab on our patients after their discharge from the institution. There should be a close relation between the sanatorium authorities, the physicians, and social workers of the institution and the family of the sanatorium inmate. This close relation should begin with the entrance of the patient into the sanatorium and continue after his discharge as long as it may seem neeessary in the interest of the former patient, his family, and the community. It is in this regard, I believe, that we have been most remiss in our dealings with our patients eoming from the masses. I may say in all frankness that I believe thousands of dollars and many valuable

lives to have been uselessly sacrificed because we have failed to investigate the home of the patient, have not searched for the reasons why he became tuberculous, and have neglected to remedy the conditions responsible for his disease. An equally great financial loss and sacrifice of lives is the result of our failure to look after the patients discharged from our institutions in the right way, at the right time, and in the most practieal and at the same time most humane manner.

What sums are daily wasted because we are not taking care, or cannot take care of tuberculous wage earners at the right time and place, that is to say, at the time when there is a reasonable chance for recovery and the regaining of earning capacity through the proper treatment in the well equipped and well managed sanatorium. I am fortunate enough to-day to be able to substantiate this claim by the following figures, for which I am indebted to Dr. David R. Lyman, of the Gaylord Farm Sanatorium, with which I have the honor to be connected since its inception. Here is what has been accomplished during the last ten years:

Gaylord Farm Sanatorium, actual earnings of discharged patients up to May 1, 1914		$1,400,000 00
Total expenditures to May 1, 1914, lands, buildings and equipment	$195,958 08	
Interest on above at 5%	55,178 94	
Total maintenance	345,298 64	
		596,435 66
Excess of patients' earnings over expenditure		$803,564 34

The obtaining of these valuable statistics, showing what the commonwealth has gained by doing its duty towards its consumptive citizens, was made possible by the careful tracing and watching over the patients discharged from the institution by Dr. Lyman and his co-workers.

A universal obligatory insurance of all laboring men and women against accident, old age, and disease, including, of course,

tuberculosis, would perhaps solve this, the most vital problem of our age.

To summarize our subject, I will have to plead first that the men or women afflicted with tuberculosis, socially so situated as to be unable to procure the sanatorium treatment at home, be placed in an institution where all our knowledge of modern phthisiotherapy shall be applied with a view to re-establishing health and restoring earning capacity. In other words, there should be no uncared-for tuberculous individual, be he rich or poor, in a modern civilized community. This means, of course, an increase in the number of sanatoria, special hospitals, preventoria, home sanatoria, seaside hospitals for tuberculous joint diseases, etc. If this cannot be done by the ordinary budget, let us create a special tuberculosis tax, so that there will be no delay in the provision for those in urgent need of treatment. Let statesmen everywhere realize that without a federal department of health there can be no solution of the tuberculosis problem.

We must have a universal obligatory examination and re-examination of all citizens to discover tuberculosis and other diseases; judicious bovine laws to prevent infection of the human race from cattle; proper housing laws and supervision of factories and workshops to make dangerous infection impossible; reasonable and judicious temperance law and rational anti-alcoholic educational movements; the abolition of child labor and the support of the indigent pregnant woman a few weeks before child birth and partly during the nursing period; open-air schools in abundance, and equally great attention demanded for the physique as for the brain in primary schools as well as in high schools and colleges; the thorough training of our medical men in early diagnosis and special anti-tuberculosis work, and a just remuneration for the services they render thereby to the community and the state; special training for nurses and social workers among the tuberculous; education in schools and colleges, factories, and workshops, by literature and lectures, exhibits and museums, in all that appertains to the prevention of tuberculosis; furtherance of sanitary living, and avoidance of infection from other diseases. Our statesmen must make laws which will make farming more profitable so as to at-

tract fewer people to the cities and more to the country, and there should be state, provincial and municipal labor bureaus to adjust the supply to the demand for labor in various localities. Last, but not least, there must be a readjustment of the earnings of the laboring men, there must be a minimum wage which will enable each individual if he works to earn enough to live, eat, and clothe himself decently. There must be no underfeeding, no bad housing, more enlightenment, and more sanitary education. Tuberculosis in order to cease to be a disease of the masses must no longer be a disease of ignorance, congestion, or underfeeding; in other words, in order to combat the great white plague, I plead with statesmen and philanthropists, with men and women of power and influence, for more social justice, more humanity to the unfortunate, more kindness and love for those so sorely in need of it. Let our war be against tuberculosis, but never against the tuberculous. Let all have a sympathetic interest and let all those who can, render personal service in the holy cause, remembering that service to man is the highest service to God; the most inspiring form of religion.

16 West Ninety-fifth Street.

THE MEDICAL ARRANGEMENTS AT VALCARTIER AND FOR THE CANADIAN OVERSEAS CONTINGENT

BY COLONEL G. STERLING RYERSON, M.D., R.M.O.

Those who have had the privilege of visiting the great camp at Valcartier have been both surprised and pleased with it. Imagine a great plain five miles broad by ten miles long, surrounded on three sides by lofty mountains and bounded on the north by a fine swift-flowing river, and you have a faint idea of the location. Valcartier is sixteen miles north of Quebec, with which city it is connected by the Canadian Northern Railway. The soil is sandy and covered with moss and coarse grass—or was, for the tramp of thousands of feet has worn it bare. A great main street runs through the canvas town. On each side of the main street are drainage ditches, and at every fifty yards is a hydrant. At these hydrants the men wash, and at certain hours more bare humanity is to be seen than in any bath-house I know of. The water is pumped from the river above the camp and is of excellent quality, but contains some vegetable matter which is disposed of by slight chlorination. It contains no morbific bacteria.

The food supply is excellent, plentiful and of good quality. The cooking is done by the regimental cooks and is of the lumber-camp variety.

The men are now all clothed in khaki made of cloth or strong drill. They are supplied with underwear of good quality. They are being put through a strenuous course of training and are becoming well hardened. The days are hot, when it does not rain, and the nights cold.

Two stationary hospitals of two hundred beds each are established at the camp. They are well furnished, the supplementary stores being supplied liberally by the Canadian Red Cross Society. The average in-patients number about forty each daily, with a considerable number of out-patients. The patients are suffering from pneumonia, bronchitis, appendicitis, injuries and various minor ailments. The percentage of sick is less than one per cent., a very low record. The serious cases

are removed by means of a hospital train to the base military hospital at Quebec, which is very clean and well-ordered and well-provided. It is under the charge of Major J. T. Clarke, P.A.M.C., with Lt.-Col. Wallace Scott, A.M.C., as chief operating surgeon. The ambulance train consists of two converted coaches fitted with beds and serves its purpose admirably.

The Administrative Medical Officer of the Camp is Lt.-Col. Bridges, P.A.M.C. The sanitary officers are Lt.-Col. C. A. Hodgetts and Hon. Lt.-Col. George Nasmyth. The chief examiner of recruits is Lt.-Col. Shillington, of Ottawa. The whole force has been inoculated against typhoid, twice, at intervals of ten days. The amount of reaction varies with individuals. About ten per cent. of the men volunteering have been rejected by the medical examiners, principally on account of flat feet, bad teeth, varicose veins, varicocele and hernia. Those chosen are a prime lot, having been picked over twice.

The detail for the over-seas contingent is as follows:—

2 General hospitals, each 520 beds	1,040
2 Stationary hospitals, each 200 beds	400
1 Clearing hospital, 200 beds	200
3 Field ambulances, each 150 beds	450
Grand total	2,090 beds

There are nearly four times as many beds as are in the new Toronto General Hospital.

The personnel is made up of about 90 nurses (female) and medical officers, orderlies, drivers and cooks to the number of about 1,100. I cannot give the names of the officers commanding, as at the present time of writing they have not been given out. Toronto will be well represented on the staff. The time of sailing and the destination of these hospitals have not been made public, but it is reasonable to suppose that some of them will go direct to the scene of action.

PRESIDENTIAL ADDRESS—ACADEMY OF MEDICINE, TORONTO

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In the first place, permit me to express my deep appreciation of the honor of having been elected President of the Academy of Medicine for the current year. When one reflects on the manifold duties and responsibilities involved, he may well be pardoned some misgiving as to the wisdom of your selection. If, however, an abiding faith in the mission of the Academy and of its possibilities of usefulness to the profession of Toronto, and a willingness to do one's best to promote its welfare, will compensate for other deficiencies, I may hope to justify a claim to these qualifications. Until two months ago everything gave promise that this year should be marked by a continuance of the phenomenal progress which has attended the Academy in increasing degree each succeeding year since its organization in 1907. The increase in membership, now about four hundred, the growing attendance at meetings, the ready response from leaders of the profession, abroad as well as at home, to contribute to our programmes, the steady growth of the library, and, not least, the general recognition that we now have a strong and representative organization which reflects the opinion and mobilizes the influence of the profession, are all gratifying evidences of our progress. The rapid growth of the Academy, however, has produced problems pressing for solution. Already our accommodation for both library and meeting purposes is greatly overtaxed. The council had considered the matter and had formulated a plan to submit to the Academy to make provision for these urgent needs.

Through the munificence of Mrs. Ross the means were provided for the erection of a beautiful auditorium as a memorial to our revered colleague and first president, the late J. F. W. Ross. This splendid contribution, with others in sight, if supplemented by reasonable assistance from our own members, brought within view the realization of a building in Queen's Park worthy of our profession and city.

The sudden breaking of the cloud which has so long threatened our empire and the peace of the world, however, has dislocated the affairs of our country and turned the resources and energies of our people from peaceful pursuits to a struggle against a military despotism, for not alone our national existence, but for the cause of freedom and the future of civilization.

These events have made it necessary that our plans for building shall be held in abeyance for the time being.

In this crisis, as in the past, our profession has stood ready to accept its share of sacrifice, not only in answering the call of duty in active service, but in contributing both time and money for the care of the needy dependents of our soldiers and for the relief of the increased sickness among the poor of our city. Most of us shall not have to face the dangers and hardships of active service, but the hearts and prayers of every Fellow will follow those of our colleagues, including the chairmen of two of our sections who have gone, and they may be assured that each of us will consider it not only a duty but a privilege to conserve as far as possible their interests during their absence.

This session we are unlikely to be favored by visits from transatlantic colleagues, whose contributions to our programmes have been such a valuable feature of our meetings in past years. It is a great satisfaction, however, to know that we still have our good American friends to call upon, one of whom, in the person of Dr. L. G. Cole, of New York, we shall have the pleasure of hearing to-night.

There is none among us who does not look forward with confidence to the time when "dangers troubled night depart," and peace with honor shall be again established. In the meantime there is no duty more important, no service greater, which those of us who remain at home can render our country than loyally to uphold those institutions and interests committed to our special care.

May one go further and express the wish that one among you more worthy had been in my place, to say that this is an opportune time to rise superior to personal differences, jealousies or faction; to set aside all "ancient forms of petty strife," and, emulating the spirit of political parties at home and abroad, to

cultivate harmony and good fellowship, and unite on the common ground of our interest in our institutions and the profession at large.

It is idle, as it is undesirable, among independent, earnest and educated men to look for uniformity of thought or opinion on all questions which may arise, but let us respect to the fullest degree honest differences and as University men let us cultivate a spirit of freedom of thought and action.

Above all let our quarrels and differences, if any, be among ourselves and not unnecessarily aired in public or submitted to the judgment of outsiders indiscreet enough to meddle in family affairs or ready to deliver judgment on *ex parte* evidence.

It is customary on occasions such as this to select for consideration some topic of outstanding interest and importance to the profession, a retrospect perhaps of recent medical progress, an appraisal of present conditions or an outline of the prospect for the future. In the ordinary even tenor of our way the task is usually not a difficult one, but what of the present, when bloodshed and destruction is the one absorbing interest of civilized nations?

Never by contrast, however, was the nobility and humanitarianism of our own calling more strikingly exemplified—the one profession whose sympathies and interests extend beyond international boundaries, whose chief duty is to *fight* against disease, to *conserve* the health and lives of the people, even to mitigate the scourge of war itself by its merciful service rendered alike to friend and foe. This is certainly not the time to abate our zeal or slacken our efforts in furthering the beneficent influences of the art and science of medicine.

Apart from the rapid advancement which has characterized every branch of medicine in recent years, undoubtedly the outstanding feature of the period is the world-wide movement to reorganize, to correlate and to amplify the various institutions and agencies associated with our professional work.

In the field of medical education we have seen the old proprietary schools, which served well their day and generation, gradually replaced by the medical departments of universities; the standards for matriculation and graduation have been raised, the course of study lengthened and many new subjects have

been added to the curriculum; and adequate provision has been made for the systematic teaching of the fundamental sciences in extensive and well equipped laboratories, under the direction of full-time professors.

A further tendency has been apparent during the past few years to separate medical education more widely from practice, to regard it as "primarily an educational and not a medical question." The application of this principle has already resulted in radical changes in some institutions, where the professorships in medicine, surgery and other clinical branches have been given to men devoting all their time to teaching and research, to the exclusion of consultants or those otherwise giving a part of their time to private practice. Some authorities have gone even further, and advocate the displacement of the latter altogether as clinical teachers, because they believe it is impossible for men busy in practice to give the necessary time for the proper discharge of their academic duties.

Considering the amount of executive work thrown upon the head of a clinical department in a large medical school, such a limitation of his private work has apparent advantages, though in some institutions a more democratic plan has been adopted to distribute the burden, namely, by vesting control in a departmental committee instead of in one individual.

The adoption of a principle, nevertheless, which would place the education of medical students, especially in the clinical branches, exclusively or largely in the hands of men deprived of the invaluable experience of consulting or private practice, must be viewed with grave misgiving by those who appreciate the responsibilities placed upon those whose duty it is to minister to the sick, and who know the necessity for not only a *thorough,* but a *thoroughly practical training.*

The exclusion of men doing private work from clinical appointments, moreover, would appear a needless limitation of the power of our universities to select the most competent man, regardless of any arbitrary restriction of the field of choice; it would deprive those responsible for the treatment of private patients of important opportunities for keeping abreast with professional progress, and would tend to the development of a medical hierarchy, capable of maintaining their positions and

status by controlling the facilities for advancement (provided at the public expense) instead of by the amount and character of work accomplished, under conditions wherein active competition is not only permitted, but encouraged as far as possible.

In advising against the adoption of this principle, the Royal Commission on Medical Education in London points out "the grave danger against which practice is the best protection, the danger of forgetting the individual in the interest aroused by his disease." The financial burden involved by the limitation of clinical teaching to a class devoting itself entirely to this and research, however, makes the proposition at present impracticable and therefore of only academic interest, except in institutions where money has been specially provided for the purpose.

A glance at the hospital field reveals a similar activity, aimed at bringing these institutions up to the requirements for modern clinical investigation, diagnosis and treatment. In no place has evolution along these lines, especially in the provision of excellent accommodation for both private and charity patients, been more active than in our own city, where we now have buildings which compare favorably with those of any great medical centre in the world. In America and Great Britain there has been a recognition of the necessity for radical changes in the organization of clinical departments in order to render effort more productive and to make provision for the practical application of recent scientific discoveries to diagnosis and treatment.

In some features of hospital work we are still far behind the best continental institutions. This applies especially to the organization of self-contained and independent clinics, each with its own wards, doctors, nurses and servants; with its own theatres, library, laboratories and equipment. These distinctive features of the continental system, as contrasted with the British, come naturally with the former from the common custom of having different clinics in separate buildings or clinical institutes.

The advantages of the independent clinical units, in fixing responsibility, in giving freedom in initiative and management, in permitting of the building up of each clinic along lines most suited for its special purpose, in avoiding friction and interference which paralyze action, and in providing generous rivalry,

are very evident, and account in no small measure for their greater capacity to produce good team work.

Before the Royal Commission, under the chairmanship of Lord Haldane, the inadequacy of the system so long in vogue in Great Britain to meet modern requirements was pointed out by many of the witnesses, Sir William Osler characterizing the existent conditions "as a legacy from a period when university ideals had not reached the practical side of our medical schools."

The necessity for considering these defects of organization applies to our own hospitals quite as much as to the British after which they are modelled.

In no particular has the old system failed more conspicuously to meet the requirements of modern progress than in the correlation of laboratories to the general clinical work of the wards. It is quite unnecessary to urge the essential importance of good laboratory work for the investigation, diagnosis and treatment of cases in the clinic. Any serious consideration of the question must make it conclusive that laboratory examinations and investigations are as much a part of the clinic as the use of the stethoscope or the speculum. The delegation of the laboratory work of the clinics to other departments—as pathology or pathological chemistry—can never be a satisfactory solution of the problem or productive of the best results.

Even the most imperfect attempt to meet the laboratory requirements of the clinics in this way imposes on these departments an amount of detail work which must seriously interfere with their own special functions; it places laboratory investigations in the hands of those not intimately associated with the clinical problems to be worked out, and who, no matter how competent in their own spheres, cannot be expected to have a thorough grasp of all the clinical specialties; it deprives clinicians of both the incentive and opportunities for development as practical laboratory workers, or even to apply in a satisfactory way the results of scientific methods to the cases under their control; it results in a breakdown of the laboratory work of the clinic during holidays when ward-work must go on, though the college laboratories are more or less inactive; it detracts from the independence and dignity of the clinic and presents an insuperable barrier to a high order of intensive or special clinical effort.

I believe one may safely say that there is no matter so intimately related to the future development of our clinical work and the practical training of our students as the provision of commodious and well-equipped laboratories in connection with each clinic, for routine examinations, for teaching and for investigation.

I do not wish to be misunderstood as advocating a complete severance of the systematic work in the college laboratories from the applied work in the wards, but the relation should be consultative rather than executive. One need only consider the amount of work involved in the laboratory end of the clinical specialties, the special training required, the number of assistants necessary to accomplish the work, the fact that surgery, medicine and other branches and their various sub-departments all present different problems in equipment, technique and direction, in order to grasp the impossibility of having this work carried out properly in other departments.

Every argument which can be so readily adduced in favor of the thorough training of students in the scientific departments during the primary years hinges on the necessity for preparing them properly for the study and investigation of disease, when they later enter the hospital wards. It therefore follows that sufficient time and suitable facilities must be provided for the application of the methods which they have learned, unless the chief purpose of their preparatory training is to be lost.

Leaders in the scientific departments have been among the strongest advocates of this reform, Professor Welch, of Johns Hopkins, especially having urged the necessity for " the foundation and support of teaching and investigating laboratories connected with the clinics."

To what purpose, one may ask, does the young teacher spend years in the pursuit of laboratory methods if he is to be cut off from applying his knowledge and further developing himself when once he passes from the systematic laboratories to the clinic? While one does not wish to appear as unnecessarily " emphasizing the obvious," the vital importance of this whole question is sufficient warrant for its careful consideration.

Looking to the future it appears plain that either clinicians must have the facilities for and undertake the responsibilities of

the laboratory work of the clinics, or the laboratory men must assume control of the wards. Modern requirements are not met by the present separation.

Carlyle has said " that the end of man is an action, and not thought, though it were the noblest." We have happily passed the period when we are satisfied with even an intimate knowledge of the work of others, by *reading, thinking* and *talking* of scientific medicine without doing.

What is wanted now is the *opportunity* more than the *stimulus* to work, the conditions toward which the energies of our profession have striven, when our men might be able to join as active participants in the march of progress rather than continue as interested spectators.

It has been said, with some warrant for the statement, that while our clinical staffs have discharged creditably their obligations to the sick, that they have as yet contributed little in the way of researches of scientific value. But surely if they have failed, it has been the failure of accomplishing the impossible, of attaining the end without the means, of turning out the finished product before the erection, manning, organization and equipment of the plant, rather than entirely from fault of the individual.

I should like, if time permitted, to refer to numerous other lines along which a rapid evolutionary process is taking place at the present time, such as the establishment of special institutions for medical research, the wonderful activity in the domain of public health, the popular crusades against tuberculosis, cancer, venereal disease, infant mortality, and occupational diseases; the legislative enactments in connection with workmen's compensation and national insurance, all of them questions in which we are specially interested and toward the solution of which we should use our influence.

It requires no prophetic vision to see the bearing of all these matters on the future of the medical profession. It can be said to our credit that we have always been ready to sacrifice personal interest to the common good, so that whatever tends to progress is assured of our sympathy and hearty support.

There is unfortunately a disposition on the part of some to mistake mere novelty and change for progress, and of others,

looking at a broad question from a particular angle, to overestimate the relative importance of one aspect of professional activity, usually their own, as compared with another. It is here that the steadying influence and hard common sense of the profession at large, whose theories have been tempered by the cool winds of practical experience, should make its influence felt, so that, while ready to try all things, we may hold fast to that which is good, at least until something better is at hand, and under all circumstances let us be assured that come what may the chief aim and object of our profession shall be kept steadily in view—the control and cure of disease.

But it must not be assumed that the future progress of medicine is bound up entirely in the activities of colleges, hospitals, research institutes, boards of health, and so forth. The important strategic position occupied by the general practitioner for attacking many of the problems of disease—for studying the initiation of disease, its course perhaps through many years, and its final outcome—has not been fully appreciated.

This aspect of clinical progress is dealt with in a masterly way in a paper by James Mackenzie, published in the *British Medical Journal,* January 3rd, 1914, and which should be read by everyone, especially by our younger men, who frequently undervalue the opportunities which general practice affords for scientific study. Coming from one, himself formerly a general practitioner, who has probably done as much as any other physician of our time to apply scientific methods to the elucidation of important practical questions, his words are worthy of our earnest attention. He says: "The general practitioner must be recognized as an essential adjunct in research. To him especially we should look to find out the early stage of disease and its progress. Hitherto the lack of this assistance has been the cause of the tardy advance of medicine."

In the fight against disease we represent different sections of one great organization, each with all-important duties—the laboratory worker and experimenter devising and proving new implements and methods, the hospital clinicians and specialists bringing forward that which is new and best withstands the test of application—thus keeping open the communications with the men on the firing line, the great body of practitioners, on

whose training and efficiency, after all, victory ultimately depends. Our students are the recruits, who must be imbued with the proper spirit and trained to take their places in the ranks depleted by the casualties of service and by the falling out of the veterans.

There is no essential reason for lack of harmony in work or aim among the different branches of our profession. Friction means dissipation of energy and lessened efficiency. Mutual support, sympathy and co-operation are essential to success.

At the time of the International Medical Congress last year a London paper, in an editorial on "Our Friend the Doctor," expresses a layman's point of view in these appreciative words: "The discoveries of Lister, Pasteur, Metchnikoff and Ross—to name only a few—constitute an epic worthy of a Homer. The slow dragging of her secrets from Nature, the discovery of the thousand unsuspected agents through which she works, is a fascinating study to those who understand it. The laboratory is the arsenal from which the hand of the physician and surgeon is armed. But it is the wise, experienced, tender man, the first to be called, and the last, too often, to be paid, of whom we common folk are thinking when we speak of 'the doctor.'"

Every intelligent medical man appreciates the indebtedness of modern practice to laboratory men, and disparaging remarks regarding the value of their work reveal the weakness of the critic more than of the object of his criticism.

On the other hand, practitioners generally will approve of Meltzer's candid criticism of a fortunately rare type of scientific prig, who affects a lofty disdain of everything practical and who thinks it more noble to investigate a dead rabbit than to attend a sick man. "The trouble with men trained exclusively in laboratories," he says, "is twofold: first, they do not seem to see that a medical fact observed critically by a capable physician deserves as much credence and consideration as a fact developed by laboratory methods; and secondly, the laboratory man offers positive opinions in a field in which he has no experience." We should remember, however, that clinical and laboratory knowledge are in no way antagonistic or mutually exclusive.

Among the other factors exercising an influence in the present forward movement we must not overlook the importance

of such institutions as the Academy of Medicine. It provides every year an extensive and valuable course of post-graduate instruction; through it our younger men are given an opportunity, by presenting results of investigations or reports of cases, to establish themselves in the estimation of their confreres, who will not be slow to judge them by the quality of the work they bring forward; our senior men, in the seats of the mighty, are enabled to demonstrate that their places of trust and opportunity are worthily occupied, by presenting to the great body of practitioners composing the bulk of our membership what is latest and best in their several departments; our colleagues in the scientific departments to bring their investigations and discoveries before the men who can test out their value in practice.

The library, however, is the nucleus around which centres the life of the Academy. From the time of the Alexandrian school to the present no great medical centre has ever developed apart from good libraries. Osler has said: "It is hard to speak of the value of libraries in terms which would not seem exaggerated. To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all. For the teacher and worker a great library is indispensable. They must know the world's best work and know it at once: they mint and make current coin, the ore so widely scattered in journals, transactions and monographs."

It should, therefore, be our steady aim to make this one of the great medical libraries of the world, and I believe many of us will live to see the day when this shall have been accomplished. It may be of interest to you to know that among medical libraries we at present rank second in Canada, twenty-ninth on this continent and seventy-sixth in the world.

To indicate the possibilities of growth, it is encouraging to know that when Dr. Billings took charge of the Surgeon-General's Library at Washington, in 1865, it contained less than two thousand volumes, while at present it has on file 175,507 volumes, and its index-catalogue has a reference to every rare case that has been recorded since the discovery of printing, A.D. 1450. Our Fellows, through arrangements made in Washington and the deposit of a sum of money to cover insurance by the

late Dr. Ross, have the great privilege of being able to have access to books and references from this library by merely paying express charges.

We are now prepared, at request, to place at the disposal of our members any important journal, transactions, reports, monographs or textbooks in which they may be specially interested.

An historical section of our library, in which is collected documents relating to our history and development, biographies, autographs, photographs, hospital and health reports, journals, etc., should be started as soon as possible, before passing years render much material relating to our early days unavailable.

The erection of our new building will afford an opportunity for the descendants of the many notable members of our profession, who were so closely identified with the settlement and early development of Upper Canada, to appropriately commemorate their names and deeds in our common meeting-place, and thus link up the history of the period in which they lived with the present.

It affords me much pleasure to say that a grandson of one of the early physicians of Toronto has set aside in his will the sum of $10,000 to establish a lectureship in connection with the Academy to be named after his grandfather.

The movement to organize the various city and district medical societies throughout the province and link them up with the Ontario Medical Association, and through it with the Canadian Medical Association, should receive our active support as a measure making for professional cohesion and the increasing of our corporate influence in the community.

I cannot let the occasion pass without referring with deep regret to our losing the services of Miss Mason, who filled the position of librarian and secretary to the Academy so acceptably for a number of years. Her industry, devotion to duty and unfailing courtesy won the sincere regard and appreciation of all, and our best wishes will follow her in her new vocation.

Owing to the increasing amount of work the Council considered it necessary to separate the duties of librarian and secretary.

The former has been placed in charge of Miss Charlton, who comes to us with a reputation established by many years'

service in McGill Medical College as one of the foremost librarians on the continent; the latter has been filled by the appointment of Miss Runciman, who already has given ample evidence of her fitness for the duties of the position.

It is our sad duty at this time humbly to acknowledge that "the art whose province it is to heal and to save cannot protect its own ranks from the inroads of disease and the waste of the Destroyer." Since we last met one of our best known and most highly esteemed Fellows, and a member of Council, has been called from his labors. Dr. Bruce L. Riordan was a big-hearted, generous friend, devoted to his calling, and his early death, at the height of his professional career, is a great loss to our ranks and to the community he served so faithfully. To the widow and son we all join in expression of our deepest sympathy.

The medical profession of Toronto and the Province of Ontario, since its foundations were laid a century ago by the old army surgeons, has exercised an influence on our political, educational and social development which stands as a lasting monument to the character, capacity and influence of its members. We have a noble heritage, and it is our duty to see that it is transmitted, to those who follow us, unimpaired in dignity, honor and usefulness.

A Comprehensive Canadian Catalogue.

The Canadian Catalogue of the Abbott Alkaloidal Co. (W. Lloyd Wood, Toronto) is worthy of the careful perusal of the profession throughout the Dominion. It was received during the past month and immediately drew our attention. It is first of all a credit to the publishers, who have not hesitated to get out something better than the ordinary everyday list of drugs. It is the exhaustive price list of a firm who have already been "tried in the balances," but *not* found wanting. The catalogue contains a fund of information, a *multum in parvo*. A glance at the contents on page iii will prove at once that the book is worthy of not only reading, but keeping for reference. It will bear careful study and assist the physician in getting acquainted with the hard and persistent pioneer work of a firm who for years have concentrated a great deal of attention on the subject of alkaloidal therapy.

Society Proceedings

THE ACADEMY OF MEDICINE, TORONTO

The current Academy year was opened in an auspicious manner under the new President, Dr. H. B. Anderson, on Tuesday evening, October 6th. The meeting was called in the Mining Building of the University of Toronto at 8.30 p.m. The attendance was very large and exceedingly representative. Dr. Anderson delivered his inaugural address, and we wish to take this opportunity of congratulating him upon the same, it being one of the best presidential addresses delivered before the Academy of Medicine since its inception. It will be found reproduced under Original Articles in this issue of *The Journal.* The guest of honor was Dr. Lewis Gregory Cole, Clinical Professor of Radiology, Cornell University. Dr. Cole delivered an address on the subject of " Roentgenologic Diagnosis of Lesions of the Gastro-Intestinal Tract," with lantern slides and cinematographic demonstration. This address we had hoped to reproduce, but fear this cannot be done, the Doctor speaking without a manuscript. Discussion of Dr. Cole's paper was taken part in by Dr. Ingersoll Olmsted, of Hamilton, Dr. Charles Treble, Dr. E. S. Ryerson and Dr. F. W. Rolph, of Toronto.

At the close of Dr. Cole's address it was moved by Col. G. S. Ryerson, seconded by Col. J. T. Fotheringham, and unanimously carried, that, " Whereas ninety-six of our colleagues have volunteered for service with the hospitals of the Overseas Canadian Contingent; and whereas they are required to furnish their mess with the necessary outfit of dishes, cutlery, etc.; resolved, that as an expression of sympathy and appreciation of their patriotism and unselfish devotion to the cause of the sick and wounded, the Toronto Academy of Medicine will open a subscription list for the purchase of a mess equipment, the money so raised to be forwarded to the senior medical officer of the contingent, to be distributed by him to the several units pro

rata." Practically every Fellow present, including the guest of the evening, who spoke most patriotically regarding the present European struggle, subscribed. *The Journal* takes the liberty of urging every member of the profession to assist this most worthy object, forwarding the amount at once to Dr. G. S. Ryerson, chairman of the committee.

The Section of Pediatrics met in the Hospital for Sick Children on Thursday, October 1st, under the chairmanship of Dr. Donald McGillivray. The evening was largely devoted to clinical cases. Reports of cases were made by Dr. J. P. Mitchell, Dr. A. W. Canfield, Dr. Alan Brown, Dr. L. B. Robertson, Dr. W. E. Gallie and Dr. G. F. Boyer.

The Section of Ophthalmology and Oto-Laryngology was convened on Monday, October 12th. Owing to Dr. P. G. Goldsmith having left with the First Contingent, an interim chairman was appointed, who was asked to act in Dr. Goldsmith's absence.

The Section of Medicine met for the first time this year on Tuesday, October 13th, under an acting chairman, Dr. R. D. Rudolf having left for England with the contingent. Dr. C. K. Clarke, Medical Superintendent of Toronto General Hospital, read a splendid paper on "The Early Diagnosis of Dementia Precox."

The Section of Surgery was called for Tuesday, October 20th, at 8.30 p.m., with Dr. Clarence L. Starr in the chair. Dr. Starr delivered his opening address as chairman, the subject being "The Acute Abdomen in Childhood." Dr. A. Primrose and Dr. G. Silverthorne addressed the Section on "Internal Hernia," Dr. A. H. Perfect also contributing to the evening's programme.

The Section of State Medicine did not meet for October.

The Section of Pathology convened on October 27th, under the new chairman, Dr. O. R. Mabee.

President H. B. Anderson is particularly anxious to make the current Academy year a banner one and, judging from the hard and consistent work that he has already done, everything points toward this object being accomplished. The Programme Committee have arranged for a splendid series of addresses and papers, and we would take this opportunity of urging the Fellows of the Academy to attend the different Section meetings as regularly as time will permit.

ONTARIO COLLEGE OF PHYSICIANS AND SURGEONS

The elections for representatives to the Ontario Medical Council take place on December 1st next. Nominations will be received up to November 13th, 1914, the same to be addressed to the returning officer for the division in which the voter resides. As far as Toronto is concerned, up to the date of this issue of *The Journal* going to press, the only change is the retirement of Dr. J. S. Hart, who for a number of years has ably represented Toronto, west of Yonge Street. The only names mentioned so far as seeking nomination to fill this vacancy are those of Drs. Herbert Hamilton and Henry A. Beatty.

PERSONALS

Dr. Gordon Rice, who was a partner of the late Dr. Bruce L. Riordan for many years, has been appointed to succeed him as Chief Medical Officer for Toronto to the Grand Trunk Railway.

Dr. H. B. Anderson, President of the Academy of Medicine, entertained about seventy-five members of the profession at dinner at the York Club on October 6th, in honor of Dr. Cole, of New York, who addressed the Academy of Medicine the same evening.

Dr. R. A. Reeve entertained at dinner at the York Club on October 7th, the *raison d'etre* being the presence in Toronto of Dr. O. R. Avison, of Seoul, Corea, who was made welcome once again by all of his old friends of twenty-five years ago. It is a pleasure to know that Dr. Avison is accomplishing such splendid work for the Master in that far-off land.

Owing to the resignations of Drs. R. A. Reeve and G. R. McDonagh from the Medical Faculty of the University of Toronto, Drs. J. M. MacCallum and D. J. Gibb Wishart have been appointed to fill their professional chairs—ophthalmology and oto-laryngology respectively.

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Editorials

SOME POINTERS ON THE MANAGEMENT OF THE X-RAY DEPARTMENT IN SMALL HOSPITALS

After the recent visit of Dr. L. G. Cole, of New York, to the Academy of Medicine, it is in line to mention a few points in X-ray affairs which would not be in vain if even one superintendent received any help from them, especially in the small hospitals where this work is struggling in its infancy.

The superintendent is in a difficult position since he is a sort of buffer between the directors and the radiographer or between the hospital and the out-patient, in regard to fees, since there must be a sliding scale of rates, not only for the different portions of the body, but, also, for the various classes of patients. He may be a layman, who has never grasped the intricacies of X-raydom, and "he" may be a nurse whose previous training did not include any approaches to radiotherapy. Here it must be strongly urged that the hospital have one lawyer in the town

retained as its solicitor, so that at any time, the superintendent may ask him to quote a certain patient's standing in "Bradstreet." It is quite safe to assume that every physician sending in a case for a picture, when it is not an emergency, will instruct his patient that there must be paid a fee in proportion to that physician's estimate of the man's finances. Though an out-patient, as for example, a laundress with a needle in her toe, such a person should be charged as if a ward case, while a wealthy man, though he may think he has only sprained his ankle, should pay at private patient's rates, if he is in only ten minutes. Fees for ward cases should include only the working cost. For private cases they should go direct to the radiographer just as the surgeon's do. The patients in this department are so often strangers in the town, or minors, that the hospital should always err on the side of charging small fees, rather than appear to take advantage of someone who is entirely blameless. An automobilist may innocently run down a man, and offer to settle all expenses rather than go to court, but he should not be asked to pay exorbitant fees for a person who, under other conditions, should go on the ward and probably be a charity case. It is worth noting here that very seldom are persons injured by autos, who belong to the class that could afford to drive a big car.

The upkeep of the X-ray machine should not be heavy. The radiographer in this should make requisitions to the office for all goods, and these bills should be submitted to some administration commit-

tee chosen from the medical board and the governors, to be audited. There need be no less care in buying plates, developing solutions or envelopes, than rubber goods or enamel. The cost of these should be counterbalanced by fees received from ward cases. It is quite easy to take two or three months for an average and divide the total number of pictures taken into the total cost of materials. This looks like making the ward case pay for the private case, but they are so much out of proportion that the latter may be eliminated. It could be considered, in that case, a charge for the radiographer's services. If the patient is penniless, the picture must be taken, none the less, just as if it were light, or heat, or food. Few municipalities are fortunate enough to have a charity department that is willing to pay for these extra items of expenditure in hospital care of their poor, over and above the daily rate.

It is well worth the while of any hospital to pay a highly expert roentgenologist to come and photograph an obscure case, if poor, showing thereby that it will leave no stone unturned to cure its sick. The philanthropists are looking for just such places, to endow them, since the laundress with the needle in her toe or the school children run down at their own marked crossing are the very people they want to protect.

When a physician installs an X-ray machine in his own office, to learn the science, he has gone many steps towards making good. But he must produce definite results before he can be said to "qualify."

There are two sides to X-ray work, the plates and their interpretation. It takes a specialist who is handling many cases of every kind to interpret a plate properly. Think of the duration of the peristaltic waves mapped out on glass and immobilized! Think of a fracture in the skull. And then maybe when an old man, Dr. Cole and others like him will express a wish similar in anatomy to that in grammar of the Greek professor who sighed because he had not devoted his life to the aorist. The radiographer should have a well-defined clinical sense, and be well posted in internal medicine, or he is not justified in attempting the more difficult pictures of the intestinal or urinary tracts, because when he does get a good plate he does not know what it means. The general practitioner, on the other hand, whose patient is photographed, does not know the variations caused by light and distance and angulation sufficiently well to gauge accurately the extent of an injury.

Therefore the medical men who want pictures of their patients must be willing to concede all privileges and remuneration possible for the man who has tried, and failed, studied, observed, and finally succeeded in mastering this science. He does not merely pull a string to take a picture.

There is a complicated schedule of time limits for the various bones and other tissues of the body. No fee should be charged for a poor picture, or for a miserable interpretation of a picture. However, in the ordinary cases, any physician is capable of using the fluoroscope to set a fracture, and no patient should

be asked to have a picture taken if the fluoroscope will do.

Now that legislation and philanthropy unions and schools direct all their effort towards protecting the laboring class, and justly so, hospital records at once become a matter of moment, the system of keeping tab on X-ray work being so incorporated in the general office system that a patient can be traced immediately. Within five minutes, an employer in a suburban town can find out by telephone all the accurate information he needs about the findings of the X-ray in the case of his employee in the city clinics. The names of all people entering the hospital by way of the office should be entered in one large register, with date, hour, address and other data not needing mention here. The hospital office is constantly visited by railway claim agents, insurance men and others who are clearly entitled to such information, having once proven their standing. In the main office, one should find sub-registers for the various departments, X-ray, maternity, etc., or card systems in which a patient bears the same number as in the main register. These cards should show besides the nature of the injury, the part photographed and the findings, as well as the sort of view, whether lateral or antero-posterior.

In the X-ray room one should have a very substantial cabinet pigeonholed (since the plates are breakable and heavy), so that not more than four plates go together. Each plate must be kept in an envelope. The inscriptions on these envelopes must correspond exactly to the data on the cards in the

office, number, name, nature of the injury, etc. One should make a cross index, showing in one list the patient's names, in order of admission (or number) (2) in alphabetical order.

The usual formula presented by a claim agent is "Kindly let us have a print from the X-ray picture you took of Domenico Gramusso, for injuries sustained on April 10, 1913."

When necessary, a print is made, but the plate never leaves the hospital, assuming that the developing and printing are done there. It is considered necessary by some to file a print with the chart.

The X-ray room should be accessible to the ambulance room or accident room, for the use of the fluoroscope, and to have a picture taken as quickly as possible in bad cases. The X-ray suite or unit should be very compact, and very easily co-ordinated with those parts of the hospital needing it. It is not good to tuck it in the front showing end of the Administration Building far from the madding crowd of police officers and relatives that accompany an automobile accident case. In hospital architecture, too, one must remember to have halls that permit free moving of beds, and doors that will easily admit a bed with all its fixtures—elevators, ditto. A medical case can be wheeled to the X-ray room in a chair, but a man with a Buck's extension ought not to have to go far. The X-ray room should also be placed near the entrance for out-patients, so as to avoid sending them through other parts of the building.

Much useful and fine work has been done in hurry-up cases, by portable machines, but a hospital cannot now depend on them. It has been my pleasure to prepare for the coming of Dr. Cole, the roentgenologist who recently visited the academy, to take a picture with a portable machine, as well as to convey patients to his stationary machine in his own office, and his address was really the occasion of this little sketch.

When the patient is being photographed, there should be nobody else in the room but the radiographer and the nurse or a relative, since the rooms are generally close and stuffy, and there is probably some stripping and draping of the injured member necessary.

A recent judgment was rendered in one of the New England courts that if an employer called in a physician and told him to take care of an employee, who needed X-ray work which was promptly attended to, the employer would have to be responsible for the patient's bills to the physician and to the hospital.

When should a picture be taken? In medical cases, as the patient's case grows older, improving or getting worse, and in fracture cases (1) before setting; (2) after setting; (3) on discharge to show the perfect result.

Every point should be strained to avoid medico-legal complications.

A physician should not fail to have X-ray pictures taken, even to prove that there is no fracture, using the fluoroscope, however, in a part like the femur.

Nobody should have access to the X-ray suite, except persons authorized therefor, since the parts of the outfit are all very dangerous or delicate, and serious loss would be entailed by any carelessness. During storms, however, the key should be obtainable to see that windows are closed, and no current on, just as the telephone companies shut off the power for safety.

EMILY HOWARD STOWE, M.D.

"Oh! may I join the Choir Invisible of those immortal dead who live again in minds made better by their presence"—George Eliot wrote. To-day we twine those beautiful words around the memorial to a Canadian woman unveiled on October twenty-ninth, in the City Hall, Toronto. Emily Howard Stowe, Medical Doctor, philanthropist and advocate of liberty of thought and equal franchise in those early days when co-education and the entrance into a professional career, meant, in Canada, a weary road and a long lone furrow to "only" a woman.

Dr. Emily Stowe's brave battle has secured a chance under more benign conditions for other women of a younger generation to obtain the prize for which she fought (single-handed at first) so valiantly and well.

So to-day a group of those women who delight and honor her memory and walk in her footprints have

presented to the city she loved her strong, serene face wrought in bronze.

" My task accomplished and the long day done;
My wages taken, and in my heart
Some late lark singing
Let me be gathered in the quiet west,
The sundown splendid, and serene Death."

Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Reprints supplied at Net Cost

Original Contributions

A FATAL CASE OF RABIES IN A CHILD

BY J. G. FITZGERALD,
Director, Antitoxin Laboratory, Department of Hygiene, Associate Professor Hygiene, University of Toronto.

Fatal cases of rabies in human beings are not uncommon in communities where the disease is prevalent amongst dogs and other animals, and the case here to be reported offers nothing unusual in that particular. It may, however, serve to emphasize the necessity for great care and discrimination in advising as to whether the Pasteur treatment is necessary.

Without going at all into the literature, it may be recalled that the great majority of human beings known positively to have rabies die of the disease; recovery is exceptional and its possibility is sometimes denied. The weight of evidence at the present time, however, seems to suggest that individuals known to have had Negri bodies in the brain, have died of other intercurrent maladies (Paltauf and others).

I have learned from Dr. John A. Amyot, Director of the Laboratories of the Provincial Board of Health, of four fatal cases of rabies in human beings, in Ontario within the past seven years. None of these cases, as far as I am aware, have been reported, and in each case the diagnosis was based on clinical and epidemiological evidence, which, however, was most convincing. The diagnosis of the case here studied rests on confirmatory laboratory findings.

The case history is as follows:—

F. F. S., age 4, female, admitted to the Hospital for Sick Children, Toronto, January 24, 1914. She was suffering from nervousness and was said to have had fits or spasms. Her con-

dition on admission did not seem critical, but the history given suggested that rabies must be kept in mind. There was a definite history of dog-bite, seven weeks before admission. Shortly after being bitten, a dog was captured which seemed in every particular to answer to the description given by the child. This dog was kept under observation for the customary period of ten days and at the end of that time showed no symptoms. The child, therefore, was not given the Pasteur treatment. A few weeks later, vague symptoms developed which were somewhat alarming and the child was sent into the hospital.

Her condition rapidly grew worse and she died January 26th, 1914. I am indebted to Dr. Duncan Graham, who conducted the autopsy, for material which made it possible to determine whether the child died of rabies.

Pieces of cortex, cerebellum and basal ganglia were removed and emulsified in sterile physiological salt solution. Pieces of tissue were kept also, for histological examination.

On January 27th, 1914, a rabbit and guinea-pig were each given 0.2 c.c. of emulsion of brain by intra-cerebral injection. The rabbit died twenty-four days later. No Negri bodies were found in the brain, though the symptoms the animal presented were typical of dumb rabies. An emulsion of the brain of this rabbit, dying February 19th, was prepared, and a second rabbit injected in the same way as the first on February 24th. This animal died twenty days later and Negri bodies were found in smear preparations made from the brain. The guinea-pig injected at the same time as the first rabbit died March 2nd, or thirty days after inoculation, and smear preparations showed the presence of Negri bodies. Complete confirmatory evidence was thus obtained, proving that, unquestionably, the child died of rabies. The histological study of the tissue removed at autopsy failed to reveal the presence of Negri bodies, showing that animal inoculations were necessary to establish a diagnosis. The instructive feature of this case is this: it is absolutely necessary in every case of dog-bite that unless it can be certainly proven that the biting animal is not suffering from rabies, to have the Pasteur treatment administered. Furthermore, if there is the least doubt as to the identity of the biting animal the treatment should be administered.

The correct procedure in a case of suspected rabies is, then, as follows: If the dog is not captured, have treatment given. If the certain identity of the animal biting the patient is established, keep the dog under observation for at least ten days. If the animal has rabies it usually dies within that time. When the animal dies, the head should be sent for examination to the laboratory of the Provincial Board of Health, 5 Queen's Park, Toronto. If the finding is positive, treatment should be instituted at once. If there is any doubt, or the dog escapes, treatment should be recommended.

It is to be particularly remembered that rabies in the human being is almost invariably fatal, where the Pasteur treatment has not been given; whereas less than half of one per cent. of those treated succumb. Practically no other prophylactic measure has achieved the success of this epoch-making discovery of Pasteur.

Society Proceedings

*ACADEMY OF MEDICINE, TORONTO

The opening meeting of the Surgical Section of the Academy of Medicine was held on October 20th, with Dr. C. L. Starr, the chairman, presiding.

Dr. B. E. McKenzie presented two cases. The first a child about four years of age with Sprengel's shoulder—congenital elevation of the scapula. When first seen the shoulder was nearly on a level with the ear. At operation, by a vertical incision over the vertebral border, he found the rhomboids largely replaced by fibrous tissue. This was divided, the superior angle excised and the scapula thus mobilized was stitched to the ribs at the lower angle. X-ray plates before and after were exhibited. The amount of scoliosis in this case was not very marked. The record was that of a young girl aged 20, who had injured her elbow at the age of four. No trouble was experienced with the arm until two years ago, when she noticed that it was getting weak. This loss of function became noticeably much more marked some three months ago, when she changed her occupation. The hand shows wasting of the interossei muscles and hypothenar eminence. There is loss of sensation over the inner side of the hand and forearm. Dr. McKenzie remarked upon the rarity of the case, fourteen years having elapsed before any nerve lesion showed itself. On looking up the literature he found that Sheriffs had reported some twenty cases similar. Believing that the ulnar nerve, in the region of the elbow, was being injuriously affected, an attempt was made to relieve the condition by exposing the nerve. It was found however to be quite normal, with possibly some adhesions just below the joint. It was returned to its bed and surrounded by fat, and the wound closed. No improvement followed, and Dr. McKenzie thought he should have brought the nerve in

*We are indebted to Dr. George Ewart Wilson, of Toronto, for this excellent report.

front of the condyle, because of the slight valgus condition of the joint, the result of the old injury.

Dr. Stewart Wright showed a man, age 16, with tuberculosis of the os calcis, healed by operation.

Dr. W. E. Gallie presented a boy whose leg had been run over by a cart wheel eighteen weeks ago. A diagnosis of fractured femur was made and a Liston splint applied. The next day the physician noticed that the leg was much swollen and the foot in a position of equinovarus. The boy had complained of very severe pain during the night. The splints were reapplied again and kept on for ten weeks. It was at this stage that Dr. Gallie saw the patient. He found that the upper end of the lower fragment was pointing backward into the popliteal space. There was absolute paralysis below the knee with equinovarus. The latter deformity was corrected by tenotomy. He considered the case to be one of ischemic paralysis—Volkmann's contracture—a condition commonly enough seen in the forearm, but of exceeding rarity in the lower limb. Dr. Boyer, who examined the patient from the neurological standpoint, for Dr. Gallie, stated that there was complete anesthesia below the knee, the patient exhibiting no distress when a pin was pushed deeply into the tissues. He observed that such marked sensory disturbances were not typical of Volkmann's contracture, but thought this was an extreme case. There was no response to either the galvanic or faradic current. There has been no improvement since coming under observation.

DISCUSSION OF CASES PRESENTED.

Dr. George Wilson thought that Dr. McKenzie's case was not one of injury to the ulnar nerve at the elbow. He had made only a very superficial examination, but had noticed that the muscles of the thenar eminence as well as the hypothenar and interossei were paralyzed. The first group are supplied by the median, the others by the ulnar. Then the patient was able to feel a piece of cotton over the ulnar distribution and there was no deformity of the fingers, such as one would expect in ulnar paralysis—the main en griffe. He was of opinion that the lesion was higher up and might easily be explained by a cervical rib.

Dr. H. B. Anderson asked if the electrical reactions had been taken and what was the prognosis.

Dr. Boyer inquired if an x-ray examination had been made to exclude cervical rib, he being of the opinion that the lesion was higher than the elbow.

Dr. Langstaff wanted to know if Dr. Gallie thought that flexion on an inclined plane with traction would have resulted in union.

Dr. McKenzie, in reply, was quite convinced that his patient was suffering from an ulnar nerve injury, pure and simple. He had had the advice of a second party who agreed with him. He had had an x-ray of the neck taken, but it showed nothing. He was not satisfied with his operative result.

In reply to Dr. Langstaff, Dr. Gallie explained that he was showing his patient as one of extreme interest, and had not intended to discuss methods of treating fractures. He agreed that flexion with traction would have resulted in union.

The chairman then read his opening address upon "The Acute Abdomen in Childhood."

My first duty is to thank the Fellows for electing me to the office of Chairman of this Section. I am fully conscious of the responsibility it carries, and equally aware of my inability to make the Section all it should be. But if willingness to serve will make up for other defects, I can assure you that nothing will be lacking.

Before launching the subject I have chosen, it occurs to me that it might be advantageous to briefly "take stock" of our position, and consider what the aims of such a section should be in our community.

(1) The writer feels that primarily the Surgical Section of the Academy of Medicine should be in the nature of a most powerful stimulus to its Fellows to do better work in all spheres of activity. It should be a source of inspiration to each to higher ideals, so that none may allow himself to drop into a routine type of life, thus losing his enthusiasm and energy, to the everlasting discredit of himself and to the hurt of his patients.

(2) The Section Meeting should be a place where we may mutually benefit by a free and frank discussion of difficult problems along practical as well as theoretical lines.

(3) The meeting should also be a place where Fellows doing advanced work, or research work of any sort, may present it for consideration, and feel that in so doing they are making a presentation to a body of men critical, yet kindly disposed, and that in this way they will find a widespread field for their work.

Has the Section Meeting filled the place it should in the lives and work of the Fellows? If not, wherein lies the responsibility? The chairman certainly cannot ask Fellows to attend the meeting if nothing of value is presented, thus wasting their time and discouraging further attendance. This would assuredly be "lowering leaky buckets into empty wells and growing old drawing nothing up." The criticism has been made that the subjects of discussion are not sufficiently practical to be of value to the practitioner in his everyday work. There may be an element of truth in the criticism: at the same time we must not neglect the advanced work nor refuse to listen to anything which promises for the welfare of our profession, and for the alleviation of the suffering public. If the meeting fail in realizing the ideals we set before us, the responsibility must be borne jointly by the Association and the Fellows in attendance. It is only by co-operation that we can hope for the best results. The chairman and secretary pledge themselves to be unsparing in their efforts to provide interesting subjects for discussion, and plead for the hearty support of all: first, in a ready response to requests for contributions, and, second, for your attendance in large numbers promptly at the hour scheduled and especially for an active discussion of all the subjects presented.

The chairman chose the subject of "The Acute Abdomen in Childhood," because of the difficulties presented in diagnosis, and possibly, the equal difficulties in treatment, and with the hope that an earnest consideration of the subject may enable us to arrive at conclusions which will lessen the mortality in this very serious class of cases. In a fairly long experience, in attending both adult and children's clinics, the writer is convinced that there are many difficulties in the way of making

a correct diagnosis in the child which do not appear in the adult. At the same time he is equally convinced that if the same painstaking and patient care is given as in the adult, diagnostic errors will be very much less frequent.

It is within the experience of every surgeon of large experience in the treatment of adults, that the vast majority of cases of inflammatory conditions in the appendix are correctly diagnosed and sent for treatment sufficiently early that the appendix may be removed and the abdomen closed: that is, the patients are referred for treatment before rupture of the appendix with subsequent local or general peritonitis has taken place. The particular point which impressed the writer seriously is, that during the past eighteen months in our Children's Clinic only three cases have been sent for treatment before abscess formation or perforation had taken place, and two of these were sent in from our own Out-door Clinic where patients had sought advice for pain in the abdomen.

The inflammatory changes in the appendix are the most frequent causes of the acute abdomen in childhood, as in adults. One may ask if the symptoms differ materially in childhood from those in adult life that this wide discrepancy is noted. In the opinion of the writer they do not differ in any essential character, except in the inability to localize the subjective symptoms.

The difficulties of making a careful examination of the tender abdomen in a child are undoubted. The difficulty of separating voluntary from involuntary muscular rigidity is also well recognized. Furthermore, there is no doubt that one cannot get material assistance from questioning the patient as to the location or character of pain, but with patience a careful observer can usually get sufficient information to arrive at a definite conclusion.

In the adult we are all impressed with the necessity of avoiding purgatives on the one hand, and opiates on the other, in cases of pain in the abdomen, until a definite diagnosis is made; but I am afraid that we are not always equally careful in the child, and yet it is fully as essential that they should be avoided. It must also be recognized that many parents are in the habit of dosing their children with purgatives in all cases of pain in the abdominal cavity before calling a physician.

It should be our duty to educate the public to the same care in acute abdominal disease in childhood, as in adult life. The frequency with which children develop colicy pains, and even inflammatory changes in the intestinal tract, from indiscretions of diet is well known, and these must be differentiated from the acute inflammatory changes of the appendix before purgatives are given.

Our experience also seems to point to the fact that the appendix, once inflamed in the child, subsides or goes through to the interval less frequently than in adults, this probably due to the fact that almost invariably they are given purgatives: and to quote the epigrammatic statement of Moynihan—"Purgation means perforation."

The etiology of the acute appendix in childhood is similar to that in the adult, kinking of the appendix with trauma of the mucous membrane from concretions being possibly more frequently found. The symptoms in the child are the classical symptoms of adult life, and, as has been pointed out, the only difficulty is in eliciting them.

The first symptom to be noted is, of course, pain. This pain is usually referred to the abdomen generally, and rarely do we find in the early stage the localizing symptoms in the right iliac region that we find in the adult. One must also remember that the pain subsides temporarily with the perforation of an acute appendix. This often has been misleading. Vomiting is practically always present, and sometimes precedes the onset of pain. Tenderness over the so-called "McBurney's point" is not constant, and often absent altogether.

The rigidity of the abdomen is a marked symptom, except in cases where the appendix hangs over the brim of the pelvis. The rigidity must be carefully differentiated from the voluntary rigidity or the spasm of muscles due to crying. If one persists with gentle pressure on the abdomen, attracting the attention of the child at the same time, the voluntary spasm can usually be differentiated from the involuntary rigidity.

The pulse and temperature are as varying an element in childhood as in adult life, and one gets to look upon the character and rate of the pulse in childhood as of greater significance than the temperature.

The diagnosis is based practically upon the careful examination of the abdomen, with the history of onset. Any child attacked with sudden pain in the abdomen, vomiting, rigidity of the muscular wall of the abdomen even if not localized, tenderness—more marked on the right side than on the left—in the absence of diarrhea or other intestinal symptoms may be suspected to have an acute appendix. In the cases of pain without marked muscular rigidity, a rectal examination should always be made, as one will frequently easily feel a mass towards the right side, either in the true pelvis, or over the brim of the pelvis in the right iliac fossa. Such an examination can readily be made even in a child less than a year old, if one is careful, without doing any damage to the patient.

In differentiating this condition one must always keep in mind the possibility of pneumonia. On first glance it would seem almost impossible to confuse the two, and yet it is so common that the writer, when called by a house surgeon to see a case of supposed appendicitis, always enquires if a careful examination of the chest has been made: and to the knowledge of the writer, on more than one occasion the abdomen has been opened only to find a normal condition, and a subsequent pneumonia of the right base has been found. As an instance of this, the writer may be allowed to cite a case of a child of three who had very marked pain referred to the abdomen, and very evident rigidity of the muscles of the abdomen, in which a diagnosis of appendicitis had been made. The suspicious element in examining the child was a slight grunt in the respiration. In the effort to determine the fact of rigidity of the abdomen it was found that if the child were placed upon its side with the legs drawn up, between the respiratory grunts the abdominal wall could be crowded quite to the depth of the iliac fossa without eliciting pain or increased muscular spasm. Nothing could be determined in the chest upon examination, but the symptoms were such as to warrant postponement of any thought of operation until the next day, when a careful examination again of the chest revealed a distinct pneumonic patch in the right-base behind.

Indigestion and colic, or colitis, are readily differentiated by the fact that with these conditions are associated frequent stools, sometimes with mucous and undigested food.

The prognosis in childhood, even though operated on late in the disease, is usually good. Very rarely do we find any of these patients dying, even though general peritonitis has ensued, except in cases of long-continued vomiting from paresis.

With regard to treatment, the writer is more and more convinced as the years go on, that the only treatment of acute appendix in childhood is surgical interference, and that at the earliest possible moment. If all sedatives and laxatives are withheld in children, and care taken to make an early diagnosis, the operative treatment of the acute appendix should result in nearly one hundred per cent. recoveries.

Drainage should be used only in those cases where the appendix is ruptured, and there is definite free pus in the abdomen. The sero-purulent matter found in the abdomen of a child when the appendix is not ruptured, may be disregarded and the abdomen closed without drainage.

It is wise also to carry the drain through the muscular portion of the abdominal wall in order to prevent the occurrence of hernia subsequently.

The after-treatment is similar to that in the adult, except that the continuous rectal saline is never used because of the restlessness of the patient. Rectal salines varying from 2 to 6 ounces are given at intervals, and if these are badly retained, interstitial salines are used.

The Fowler position is advocated in all cases with peritonitis.

The next most frequent cause of acute trouble in the abdomen is intussusception. One may say in a general way that under the age of one year most of the cases of acute abdomen are cases of intussusception, and those over one year acute appendix, as nearly all the cases of intussusception occur in the first twelve months of life. The statistics of our Hospital are similar to those found in all large Children's Hospitals throughout the world: that unless these cases are operated on within the first thirty-six hours, they almost invariably die.

The etiological factor in these cases is usually an irregular peristalsis with diarrhea, sometimes associated with a foreign body, or a pedunculated condition of the mucous membrane or

polypus near the lower part of the small bowel. These conditions in conjunction with the fact that the intestinal wall of the infant is very thin and of great mobility, account for the frequent occurrences in infancy.

The writer would like to impress upon the minds of the Fellows the fact that the upper portion of bowel telescoped into the lower may extend throughout the whole length of the large intestine, and that after thirty-six hours—or forty-eight hours at the outside—the intussusceptum becomes densely adherent to the intussuscipiens, and consequently it is almost impossible to reduce even with the abdomen open.

The symptoms are usually typical. There is the acute onset with pain, usually vomiting, and in the early stage, the characteristic straining and tenesmus. The stools are frequent; first, fecal in character, and subsequently made up wholly of mucous streaked with blood. Palpation of the abdomen in the early stage usually reveals a sausage-shaped tumor in the upper right quadrant although sometimes it is felt in the region of the descending colon on the left side. In some instances the mass telescopes so far that it can be felt easily by rectal examination.

The appearance of these symptoms in a child under eighteen months of age should be interpreted as meaning intussusception, and no time should be wasted before advising radical treatment.

A very misleading feature of these cases is the fact that after thirty-six to forty-eight hours the symptoms seem to abate somewhat: that is, the marked straining largely disappears, and possibly a mild grunt is substituted. The abdomen, however, usually becomes distended, and consequently any mass that might have been felt in the first twenty-four hours cannot now be felt. The apparent quiescence of the symptoms is undoubtedly due to the toxemia, and it must be borne in mind that some babies will be able to retain some quantities of fluids without vomiting though there is complete obstruction for days.

A differential diagnosis is to be made simply between intussusception and intestinal obstruction from other acute causes, such as strangulated hernia or volvulus. Strangulated hernia usually shows signs of a mass in the region of the various hernial openings, and gives all the signs of obstruction without the straining and bloody stools.

Volvulus occurs very rarely in the child, and of course no mass is palpable in the abdomen.

The only treatment that should be considered is a laparotomy with unfolding of the telescoped portion of the bowel where possible, or, in case of gangrene, the complete resection. The writer feels so strongly on this subject that he would like to urge that no valuable time be wasted in the useless administration of enemas, or the temporary distension of the lower bowel with gas, or any similar methods, before recommending surgical treatment. There is no question that if sufficient pressure by means of enema or mercury, or even gas, is used in an attempt to undo the telescoping, that rupture of the bowel will more likely ensue. If the patient is operated on within the first twenty-four to thirty-six hours, one can usually undo the intussusception by manipulation, and if care is taken to see that the first portion to enter is completely straightened out, the intussusception will not usually recur. If, on the other hand, more than forty-eight hours have elapsed, the possibility of restoring the canal by manipulation is very unlikely, and if gangrene or rupture of the bowel has already taken place, there is nothing to be done but a resection of the bowel, and it is usually wise in these cases to establish an artificial anus rather than attempt an immediate anastamosis.

Strangulated hernia occurs moderately frequently, but usually is readily diagnosed early, and is early referred for treatment. The fact of the mass in the usual hernial openings is readily seen, and with a child suffering from symptoms of obstruction, this condition is rarely overlooked. Our experience has been, however, that frequently irreducible herniae are mistaken for cases of strangulation.

In babies and small infants it should be borne in mind that taxis should never be employed for more than a few moments for an irreducible hernia. If no acute obstructive symptoms are pressing in a recent irreducible hernia, it is the custom in the hospital to put such children to bed with the head lower than the buttock and with an ice pack applied to the hernial mass. In the great majority of cases within an hour or two the hernia returns spontaneously with such treat-

ment. If the hernia does not return spontaneously, and with very gentle taxis it is found impossible to return it, then operation should be resorted to at once and the usual radical treatment of hernia is adopted; that is, the constricting ring, which is usually at the external opening is split and if the surface of the bowel is still glistening, even though quite black in appearance, it is relaxed for a time and heat applied, and when it shows signs of restored circulation it is returned to the abdomen and the hernial opening closed.

Volvulus is distinctly uncommon in childhood, and is usually discovered accidentally in cases of laparotomy for obstruction. One sometimes finds a child suffering from acute pain in the abdomen, with some vomiting, slight straining, and possibly even some mucus and blood in the stools—but no fecal discharge—diagnosis of obstruction having been made and a laparotomy performed, the volvulus is discovered. It simply needs to be untwisted, and in some few instances, fastened with a fine catgut to the wall of the abdomen to prevent recurrence.

Dr. Primrose followed with a paper on "Internal Herniae," illustrated by lantern slides. The following is a brief summary of his paper:

Retroperitoneal herniae are met with mainly in four distinct regions. First, and most commonly, in connection with the duodenojejunal juncture, where the most important types are right and left duodenal pouches. Second, in the neighborhood of the cecum and vermiform appendix. Third, the fossa, at the base of the mesentery of the sigmoid. Fourth, the region of the "lesser sac" of peritoneum and the foramen of Winslow.

The etiology of these various fossa is readily ascertained from embryological study. In the sixth week the intestinal canal runs a straight course, the blood vessels reaching it through its mesentery. Subsequently this simple arrangement becomes complicated by rotation of the intestine and fusion of the different layers of peritoneum—hence the pouching.

Of greater interest from the surgeon's standpoint, is the fact that the anterior or ventral boundary of the fold contains almost always a blood vessel which is responsible in these

instances for the production of the fold and the fossa behind it. For example in the left duodenal hernia the inferior mesenteric vein occupies the margin of the ventral fold, while in right duodenal hernia it is the superior mesenteric artery.

The frequency of internal hernia into peritoneal pouches may be judged from the fact that Moynihan was able to collect from the literature 68 cases of left duodenal hernia, 17 cases of right duodenal, 19 cases of pericecal, 2 cases of intersigmoid, and 12 cases of hernia into the foramen of Winslow.

The case recorded in this paper is probably unique in that it occurred in connection with a very rare abnormality, namely an aberrant origin and course of the middle colic artery, which arose from the right common iliac and proceeded upward to the transverse colon. In relation to this vessel a pouch developed which contained the whole of the small intestine.

The history of the case, published in full in *Journal of American Medical Association,* September, 1914, is as follows: J. H., aged 60, complained of epigastric pain for three years. The pain was usually some hours after eating. Eighteen months previously had had a severe hemorrhage from the stomach, blood likewise appearing in the stools. He had lost weight, and there was hyperchlorhydria. There was a tumor about the size of a large lemon apparently in left rectus muscles, immediately above the umbilicus. X-ray showed an hour-glass stomach with permanent incisura. On opening the abdomen the stomach was so adherent to parietes that the viscus was opened during the separation. The affected portion of the stomach was removed. On further exploring the abdominal cavity a remarkable condition of internal hernia was discovered. Behind the aberrant middle colic artery already referred to, was a huge open-mouthed pouch, which contained the entire small intestine except the terminal two inches which passed out to join the cecum. The fundus of the sac was quite free, so that one could lift it out of the pelvis, and it seemed as if the intestines could be readily shaken out of the acquired bag. The descending colon lay behind the sac, the transverse colon above it and the ascending colon immediately to the right of its neck, while the fixed portion of the duodenojejunal juncture was likewise entirely within the sac at its upper part.

In view of the fact that the patient did not seem to be suffering from his hernia and the improbability of it ever becoming strangulated, it was deemed advisable to leave it alone. The patient made an excellent recovery and has remained well since the operation, some six months ago.

Dr. Silverthorne presented notes with lantern slides of a case of pericecal hernia.

This specimen of internal hernia was from the body of a man who died in the Toronto General Hospital some years ago.

The man was 46 years of age, and was admitted suffering from intestinal obstruction and enormous distension of the abdomen. One and a half years before admission he suffered from obstruction of the bowels, and it was thought at the time by his medical attendant that he had an intussusception. He was at that time enormously distended, and his heart's action was so weak that it was considered impossible to carry him safely through an operation. The urine contained a considerable amount of albumin. Much to the surprise of his medical attendant he recovered. Subsequently he suffered attacks of severe pain in the right side of the abdomen. These attacks would come on about once a month, and would be relieved when the bowels moved. His general health continued good until the final attack which proved fatal. He was admitted to the hospital in a condition almost moribund, his trouble having then continued uninterrupted for two weeks. The urine contained albumin and pus,—the pulse was extremely weak and irregular, and he died shortly after admission.

At autopsy there was enormous distension of the abdomen caused by accumulation of gas in the small intestine—the seat of obstruction being a tumor, situated in the right iliac fossa, about the size of a man's head. The entire length of the small intestine was about equally distended to a diameter of about three inches. There was a general bluish discoloration of the serous coat, but no evidence of peritonitis. The ileum was traced into the tumor in the right iliac fossa, and beyond the tumor could be seen the ascending colon, which was not abnormally distended.

On closer investigation, the tumor itself appeared to be made up of distended intestine, lying behind a peritoneal covering possessing in its lower portion an oblong opening which led to the general peritoneal cavity, and into this opening disappeared the terminal portion of the ileum and the proximal end of the ascending colon. From the front part of this opening the tip of the appendix protruded.

No other abnormal condition was found in the body save that a stone was impacted in the left ureter and the pelvis of the left kidney was much dilated. The tumor was removed with the adjacent portions of the intestine and placed in 10 per cent. formalin. The specimen was subsequently examined when fixed by the preservative fluid.

The tumor was globular in shape and measured nine inches in diameter and was found to consist of two portions of intestine. One portion was continuous with the ascending colon, and was found to consist of a dilated cecum making up the greater part of the tumor mass and occupying the right lower side of the peritoneal sac which enveloped the tumor. The colon became continuous with the cecum near the left border of the sac. The ileum entered the sac below and to the left side. It then extended forwards to end in the distended cecum.

After allowing gas to escape from the cecum it was possible to remove the contents of the sac by traction. There were no adhesions between the contents and the wall of the sac, nor was there any deposit of lymph or overthickening to indicate previous peritonitis.

The contents of the sac consisted of 5½ inches of ileum ending in a distended cecum and a portion of the ascending colon. The cecum when fairly well distended, measured 7 inches in diameter from right to left and was nearly globular in shape. Above the ileo-cecal junction a portion of ascending colon, 16 inches in length and 3 inches in diameter, occupied the sac. The first 7 inches of the ascending colon continued upwards and in the upper portion of the sac was twisted from right to left through half a circle, there undergoing a marked constriction. From this point it continued for 9 inches, —the bowel in this part being of normal size—and then made its exit from the sac. The sac enclosing this piece of bowel was

apparently composed of two layers of peritoneum—one, the anterior, continuous with that composing the colon and post-abdominal wall—the other layer being continuous with that covering the post surface of the cecum and the post-abdominal wall below. This sac was about 9 inches in diameter and had on its post wall a portion of the descending part of the duodenum, and on its outer wall lay the portion of the colon proximal to the twist above described.

The mouth of the sac if distended measured about 5 inches in diameter and looked almost directly downwards.

The last paper of the evening was by Dr. Perfect, on "Some Fractures of the Upper Extremity."

Next to the clavicle, Colles' fracture is the most common of fractures. It is essentially an extension fracture and differs from the " reversed Colles " or flexion fracture of the wrist. It is more common in elderly people. The " Chauffeur's " fracture is usually about an inch and a half higher up. The direction of the break frequently is transverse, but may be oblique, antero-posterior or lateral. Epiphyseal separation is found in young people only. The displacement in Colles' fracture is not great because the impaction prevents it. There are two elements in the displacement important to remember in reducing the deformity. The first is a sliding of the lower fragment toward the elbow. The second and more important is the tilting of the fragment, causing the articular surface to be deflected backward and somewhat outward. The styloid process of the radius is carried to a higher level than the styloid process of the ulna. The latter is frequently broken off, but it is not of much moment. Velpeau's " silver-fork " deformity describes the appearance of Colles' fracture, and is almost pathognomonic. It is the tilting of the fragment that accounts for an almost identical deformity no matter what the direction of the line of fracture. When examining the styloid process the injured arm should be supinated. Besides the " silver-fork " deformity the outward deflection of the hand toward the radial side is fairly constant. The ulnar muscles try to make compensation for this by abducting the little finger. Even where

the characteristic silver-fork deformity is absent, no one who assumes the responsibility of treating a case can afford to do so without using the X-ray, and this for two reasons, first, the patients' welfare, and second, the protection of the physician. Colles' fracture has the record for malpractice suits, being more than that for all other fractures combined.

The diagnosis is ordinarily easy—The "silver fork," the backward displacement, the swelling at the back of the wrist, the crease in front, the outward deflection of the hand to the thumb side and the abducted little finger. The subjective symptoms, pain and tenderness, are always present. Crepitation and mobility are rarely present. A fluoroscopic picture before an attempt at reduction is very helpful. The type of splint used is a matter of opinion. Dr. John B. Murphy said at Mercy Hospital last fall, that so long as the fracture was properly reduced he didn't care if the splint consisted of red spruce gum, the results would be just as good as the most expensive appliance. Accurate reduction and freedom from pain are the great desiderata. Reduction is more easily accomplished with the patient anesthetized. It is then the forearm muscles let go their contraction and the impaction is easily loosened by forced hyper-extension. The lower fragment is not moved until after the normal right angle of the dorsum of the hand with the axis of the forearm has become an acute angle. Then with a loosened fragment and posterior pressure on it with gentle abduction and adduction of the hand the normal contour of the parts is established. To a patient who will not take an anesthetic the same treatment should be given, but a trained assistant is necessary who will hold the forearm firmly on a table with the wrist over the edge. The site of injury should again be examined with the X-ray to be sure that there is accurate apposition of the parts. Posterior and anterior plaster of Paris splints can be held in place by interrupted bandages for frequent inspection and easy removal. Circular plaster of Paris bandages in these cases are out of the question. On no account, whatever kind of splints used, should there be pressure on the thenar eminence anteriorly or on the lower end of the ulna posteriorly. The flexion of the elbow should not be impeded above nor should the splints extend beyond the base of the metacarpals below. Flexing and extending the fingers

(even if there be some pain) should be encouraged many times daily. Frequent inspection is necessary, and if there be much pain at the seat of fracture within two or three days after the accident, the X-ray must be used again to determine what amount of correction should be given. The anterior splint may be removed at the end of ten days and the hand, wrist, and forearm supported by the posterior splint bandaged as required. The posterior splint can be discarded in three weeks and a gauze bandage snugly applied at the seat of fracture. Then frequent flexing and extending of the wrist should be carried on for another ten days or more and no work permitted for two months after the fracture. Should any stiffness supervene, Biers' arterial hyperemia will be very helpful.

In fracture of the elbow, which is usually limited to childhood, a fall upon the hardwood floor or cement sidewalk accounts for many of this type. If we do not get a joint without loss of motion, then our treatment is at fault. When the deformity has been corrected it is very necessary to examine with the X-ray both antero-posteriorly and laterally to be satisfied that the position is good. Should this be impossible of attainment, the open method of treatment is advisable but only under the most careful personal and operating-room technique. Human bone plates and pegs in this, as in all other fractures, should be the only kind used. The metallic plates and screws are now obsolete, but served a purpose in the evolutionary process of bone-apposition. In Colles' fracture equally good results are obtained from many different kinds of splints, but about the elbow joint the splint must be depended upon to hold the bones in apposition while union is taking place. And the best position is to keep the forearm flexed upon the arm at the most acute angle possible. It is a matter of choice whether plaster of Paris or surgeon's adhesive be used posteriorly, so long as the limb be kept in this position, which has the advantage over an extended position in that when the patient begins to use his arm each attempt serves to stretch the adhesions. This cannot be done in the extended position. The gunstock deformity in supracondylar fractures is caused by a tilting of the whole lower fragment. This can be prevented by a splint on the inner side of the arm giving pressure on the internal condyle and another splint on the outer side of the arm giving pressure above the

external epi-condyle. Should the deformity occur it can be easily corrected by a cuneiform osteotomy.

In a crushing fracture of both bones of the forearm the tendency is for the fragments to be drawn toward the central axis. The callus from the opposing bones may easily unite and produce a synostosis, which would absolutely prevent the normal supination and pronation of the forearm.

Even what seems to be a satisfactory alignment of both bones under general anesthesia and the application of wide antero-posterior splints with as high a degree of supination as is comfortable to the patient the results are not always satisfactory. Neither is torsional suspension always applicable, it is so irksome to the patient. A segment of rubber tubing bevelled off at each end and wrapped with sterilized gauze to prevent maceration of the skin, placed anteriorly and posteriorly upon the forearm beneath the splints, may, by constant night and day pressure, push out the fragments, and in that way prevent encroachment on the interosseous space.

Olecranon Process.—I have seen a number of cases of fracture of the olecranon process. Each case was operated by the open method, and the splendid results bear testimony to the efficiency of the treatment. The fracture is produced by falling on the angle of a flexed elbow or by swinging onto a rapidly-moving train missing the grip of one hand and trailing by the other. The flap of a horseshoe-shaped incision with the toe downward is dissected back, the fragments exposed, and the debris gently removed. The transverse drilling in each segment must not impinge upon the articular surface of the elbow joint. Insert the silver wire, or kangaroo tendon, extend the arm, and tie. If silver wire be used it is twisted and the twisted ends buried in the line of cleavage. The joint capsule, fascia and skin, should be closed in layers and a dry dressing applied. The position is a matter of choice. I prefer, and have always used, the flexed position.

In fractures of the anatomical neck of the humerus following abduction of its shaft with external rotation, the skiagram shows faulty apposition, the head of the bone may be pegged by cutting down along the anterior border of the deltoid, but fractures of the surgical neck or through the neck and tuberositics give better promise for good results by abduction and

external rotation, and thus avoid operative interference. The X-ray decides.

A detached head of the radius prevents free movement of the elbow joint. The removal of it is quite easy, but the greatest care should be exercised so that the neck does not escape from the orbicular ligament or the last condition of that man will be worse than the first.

A word of warning comes to us all when dealing with extension or comminuted fractures about the elbow joint. In the presence of swelling and discoloration, making possible the laceration of one or more blood vessels, so that there is only a faint radical pulsation, we should be exceedingly careful in using dressings or splints that would further impede the circulation of the blood and thus produce an ischemic contracture, known as Volkmann's contracture. It is a progressive degenerative myositis. The normal contractile muscle tissue becomes fibrous connective tissue, and the position the useless hand and fingers assume is quite characteristic. It is caused by a deficient blood supply. A tight bandage will produce an irreparable condition.

Discussion.—Dr. F. N. G. Starr drew attention to the difficulty in getting good apposition in fracture of the anatomical neck of the humerus by the usual method of treatment with the elbow close to the chest. He thought that if the arm be extended to a right angle, perfect alignment of the fragments is easily obtained, as demonstrated by X-ray photographs. In fracture of the bones of the forearm non-union is not uncommon, the radius accounting for a very large percentage of ununited fractures. In fracture about the elbow he uses the acute flexion position, but if there is much swelling one must be very careful lest gangrene resulted.

A true epiphyseal separation at the lower end of the radius he thought never occurred, the line of cleavage being at some part away from the cartilage. He did not agree with Dr. Perfect as to the common cause of Colles' fracture, claiming that "back-firing" was now well to the fore. As to passive motion, he considered that it should always stop short of producing pain.

Dr. John Hunter entered a vigorous protest against what he considered the prevailing attitude of the younger surgeons

in rushing to X-rays for their diagnosis, instead of first endeavoring by clinical means to ascertain the nature of the malady.

Dr. John Parry (Hamilton) referred to fractures of the neck of the radius and radical head. He had treated several of these lately and found that there was always considerable stiffness, especially in pronation and supination. If the head be excised, in three weeks time a fair amount of movement may be expected. He asked Dr. Perfect how he managed such cases.

Dr. Stanley Ryerson pointed out that from an examination of the X-ray plates at the General Hospital, 60-70 per cent. of Colles' fractures were complicated by a broken styloid process of the ulna. In a considerable number the line of fracture also penetrated to the joint, thus showing the necessity of having all such cases radiographed.

Dr. W. J. Wilson was not sure that splinting in Colles' fracture was of secondary importance. Up till last week he would have agreed with Dr. Perfect, but since then he had a patient where, after reduction, the lower fragment moved forward or backward with the weight of the hand.

ACADEMY OF MEDICINE

On Tuesday, November 3rd, the Academy of Medicine, Toronto, was honored by the presence of Dr. Bertram Welton Sippz, Professor of Medicine at Rush Medical College, Chicago. Professor Sippz is too well known to require any introduction to the profession in Canada, and he delighted a full house, composed of the Fellows of the Academy, with his address that evening on "Gastric and Duodenal Ulcer," which we hope to be able to reproduce next month. The surgical aspect of this important subject was then discussed by Drs. G. A. Bingham and F. N. G. Starr, while Drs. Alex. McPhedran and R. J. Dwyer took up the medical. The evening was one of the most interesting held this winter. Dr. W. H. B. Aikens entertained about seventy-five members of the profession in honor of Dr. Sippz at the York Club before the meeting convened.

Militia and Naval Medical Services and Ambulance

OFFICERS OF THE ARMY MEDICAL CORPS NOW ON SERVICE

The subjoined list of officers of the Army Medical Corps now on service with the First Contingent is taken from Militia Order No. 463, of October 14, 1914, and is therefore official. The names represent the best of the skill of the country from Halifax to Victoria.

I. Field Army Units.

Field Ambulances.

No. 1 Field Ambulance.—Lt.-Col. A. E. Ross, Major R. P. Wright, Capt. J. L. Duval, Capt. R. M. Gorssline, Capt. R. H. McGibbon, Capt. R. C. Goggie, Capt. G. P. Howlett, Capt. C. J. Boyce, Capt. E. L. Stone, Hon. Capt. A. D. McDonnell. Supernumerary, Capt. Graham.

No. 2 Field Ambulance.—Lt.-Col. D. W. McPherson, Major D. B. Bentley, Major E. B. Hardy, Major A. E. Snell, Capt. G. Musson, Capt. J. J. Fraser, Capt. W. A. Burgess, Capt. T. H. McKillip, Capt. P. G. Brown, Hon. Capt. W. H. Fox. Supernumerary, Capt. H. Jeffs.

No. 3 Field Ambulance.—Lt.-Col. W. L. Watt, Major J. A. Gunn, Major C. P. Templeton, Capt. E. M. Vesey, Capt. K. D. Panton, Capt. F. C. Bell, Capt. S. A. Smith, Capt. P. G. Bell, Capt. J. D. McQueen, Hon. Capt. E. S. Woodwis. Supernumerary, Capt. A. S. Donaldson.

II. Lines of Communication Units.

(*a*) *Clearing Hospital.*

Lt.-Col. F. S. L. Ford, Major H. A. Chisholm, Major W. F. MacKinnon, Capt. C. H. Dickson, Capt. R. M. MacDonald,

Capt. G. W. O. Dowsley, Capt. G. B. Peat, Hon. Capt. W. Pickup. Supernumerary, Capt. J. M. Stewart.

(*b*) *Stationary Hospitals.*

No. 1 Stationary Hospital.—Lt.-Col. L. Drum, Major S. H. McKee, Major C. J. Williams, Capt. N. E. Munroe, Capt. S. H. Morris, Capt. Myrand, Hon. Capt. F. E. Currie. Supernumeraries—Major the Hon. H. S. Beland, Capt. J. C. W. Johnson. Dental surgeon—B. L. Neilly.

No. 2 Stationary Hospital.—Lt.-Col. A. T. Shillington, Major F. McK. Bell, Major H. C. S. Elliott, Capt. C. A. Young, Capt. R. S. Pentecost, Capt. J. H. Wood, Capt. S. Fisher, Hon. Captain J. H. Walker. Dental surgeon—W. Bentley.

(*c*) *General Hospitals.*

No. 1 General Hospital—Lt.-Col. M. MacLaren, Lt.-Col. F. C. Findlay, Lt.-Col. K. Cameron, Major C. F. Wyld, Major R. P. Campbell, Major F. L. Vaux, Major E. A. Lebel, Major C. E. Doherty, Capt. A. C. Rankin, Capt. J. Fyshe, Capt. J. G. Hunt, Capt. T. A. Lomor, Capt. R. Wilson, Capt. McK. Forbes, Capt. S. A. Ramsey, Capt. C. H. Robson, Capt. A. W. M. Ellis, Capt. J. T. Hill, Capt. G. Shanks, Capt. G. Corbett, Hon. Capt. R. Kirkpatrick. Supernumerary—Capt. A. L. Johnson. Dental surgeon—A. G. Hassard.

No. 2 General Hospital.—Lt.-Col. J. W. Bridges, Lt.-Col. R. D. Rudolph, Lt.-Col. W. A. Scott, Major J. T. Clarke, Major R. L. Gardner, Major P. Goldsmith, Major C. W. Gorrell, Capt. G. R. Philp, Capt. McKay, Capt. C. E. Cole, Capt. P. R. Menzies, Capt. J. Morgan, Capt. J. C. Calhoun, Capt. W. Bethune, Capt. N. V. Leslie, Capt. W. H. Tytler, Capt. S. Ellis, Capt. F. S. Burke, Capt. W. L. C. McBeth, Capt. N. McLeod, Capt. W. P. Dillon, Hon. Capt. R. H. Nicholls. Dental surgeon—F. W. B. Kelly.

(*d*) *Depot Company, Army Medical Corps.*

Officer Commanding—Capt. J. L. Cockburn. Capt. E. J. Ryan, Lieut. R. S. Ruttan, Lieut. H. B. Boyd, Lieut. C. H. Jardine, Lieut. A. Smith, Lieut. G. W. McKeen, Lieut. E. M. Davis, Hon. Lieut. E. J. Thurgar. J. T. F.

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